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Textile World

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Bankers—and Textile Mergers

EVERY diagnosis of the textile industry cites *decentralization* as one of its ills. Every prescription lists *mergers* as an antidote.

But in recent years, conditions in the industry have repelled, rather than attracted, interest from outside sources, principally the banking profession, which is regarded as essential if mergers are to be effected.

Consequently it is encouraging to note a changing attitude, on the part of bankers, toward textiles. True, they are not stepping on each other's toes in their rush to get into the picture; but they are evincing a sympathetic interest in sharp contrast to their apathy in recent years.

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Like most changes this has undoubtedly been due to a combination of circumstances. Outstanding "come-backs" by individual mills; improved merchandising methods; noteworthy machinery development—all these must have been contributing factors.

However, a major cause—and possibly an all-embracing one—has been the changed attitude of the industry itself, as reflected by the cooperative activities now under way. Bankers, speaking both publicly and privately, have focussed their attention upon this one phase. In fact, they have approached their study of the textile industry by way of a study of its associations and institutes.

An internationally known banker recently took occasion to investigate the work of The Cotton Textile Institute. His conclusion was that certain aspects of unity had been achieved in remarkable measure. He believes, however, that an *actual community of ownership,* resulting from unification of manufacturers in related lines is essential.

In other words: mergers.

Nor does he believe that the industry must wait for external support. He suggests the following program: A group of the more far-sighted manufacturers would get together and agree to merge their interest, conditioned upon the adherence of a predetermined percentage of the industry. Announcement of this decision, he believes, would be followed by a stampede to get on the band-wagon. In his opinion, no financing would be necessary, at least at the outset, as he sees no lack of working capital in the industry as a whole. Under his plan, a proportion of the quick assets sufficient to insure working capital would be exchanged for preferred stock, and the surplus quick assets liquidated and distributed in the proportion contributed, while the fixed assets, valued by means of a yardstick established by accountants of high standing, would be represented by common stock distributed in the precise ratio of fixed assets contributed.

There would be no "water" in such a capitalization, he points out.

Nor does he fear legal obstacles. He makes the very sound observation that those laws which, at first glance, might appear prohibitive, were passed *in the public interest* to prevent combinations in restraint of trade; and that, in this case, the *public interest,* from the point of view of thousands of stock-holders, hundreds of thousands of mill workers, and millions of other people dependent upon cotton growing, is preponderantly on the side of a *stable* industry.

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The moral is at least a three-fold one:

1. The cooperative activities which the textile industry is now conducting through its economic institutes, and which it is planning to conduct through its technical research institute, are of the type which substitutes centralization for decentralization—and consequently attracts banking support.

2. Actual mergers are a necessary "follow-up" and, in the opinion of this one observer at least, are entirely possible of consummation.

3. The public interest demands continued, but even more aggressive, attempts toward stabilization.

The Week in Textiles

Outlook . . .

As FALL distribution nears hopes rise for a brisker trade in textiles. . . . . Buyers of cottons are apparently sounding out market. Sellers not disposed to consider further concessions except on notably large orders. Some print cloths are weaker. . . . . Women's wear decidedly better than men's wear in wool goods field. Many of the fabrics now selling are new fancy combinations with rayon. Buying is limited and some houses are not getting much. . . . . Knit goods generally are stronger. Sweaters and fall weights in underwear are moving. Better call for women's full-fashioned hosiery. . . . . Silk goods are spotty with a reaction after a recovery in raw silk. Cantons are leaders among fabrics with continued interest in flat crepes and transparent velvets.

Cotton Goods Activity . . .

COTTON GOODS statistics for July, released by Association of Cotton Textile Merchants in New York, reflect determination on part of industry to balance output with demand. Sales during July were 108.6% of production while shipments were 106.5% of production. Stocks at end of July showed decrease of 2.3% during the month. Unfilled orders on July 31 represented increase of 1.6% during the month. . . . . There has been a steady decrease in production each month since February of this year, and stocks at end of July were about 2% less than on Jan. 1, 1930.

Confer on Taxes . . .

TEXTILE LEADERS met with Massachusetts Industrial Commission in Boston last week to discuss ways in which the Commission might help in bringing about improved conditions in the textile industry. Especial attention was given to the question of taxation and it was emphasized that every step should be taken to lighten this burden through economies on the part of individual communities. Inequality of taxation in different sections was pointed out. . . . . Conference of representatives of labor and of textile mill management was suggested for the future and met approval.

Cotton Supply . . .

INDICATED WORLD supply of American cotton for this season, on basis of Government estimate of crop issued last Friday, is, according to New York Cotton Exchange Service, about 1,330,000 bales larger than last season and about equal to the average supply in last five seasons. Indicated supply for this season is about 20,550,000 bales against 19,220,000 last season, and an average of 20,540,000 in the last five seasons.

Clothing for the Gods . . .

BUYERS OF ready-to-wear garments complain that clothing is sized for Grecian gods and goddesses, not for the average fair-to-middling American figure. Their argument is supported by the annotated list of publications dealing with garment sizes and body measurements recently printed by Bureau of Home Economics. . . . . Height and chest measurements taken during Civil War probably served as first basis for factual sizes. Theoretical Greek proportions are still followed by many designers. . . . . World War demobilization brought about the only scientific measurement study ever made in the United States to determine accurate sizing of clothing. One hundred thousand army men were measured by trained force, using identical body land-marks.

The Business Outlook

"Business activity increased last week and our indicator moved upward for the first time since the beginning of July. It stands at 87.4% of normal as compared with 86.5% a week ago and 113.7% a year ago. . . . . The upturn occurred in spite of disposition of many business men to sit tight until effects of the drouth can be accurately appraised. These, as early exaggerations fade, will be discovered not to be calamitous. . . . . There is reason to believe the worst is over—that recovery has begun; that it will be rapid as compared with recovery in 1921. . . . . Check payments increased last week; so did freight shipments of commodities most representative of commercial activity. . . . . Productive activity decline was less steep . . . . . Raw material prices continue to weaken. . . . . Approach of fall weather will start the seasonal upswing; renewed buying will strengthen prices. . . . . Sentiment in financial quarters continues to lag behind sentiment in commercial circles. Banking caution, not to say timidity, is retarding business." —*The Business Week*

Assessing Wool Imports . . .

TO DISCUSS methods of assessing imports of wool on the skin, a conference will be held Aug. 25 under Customs Bureau Auspices. Since the language of the old law is virtually unchanged, it is expected that the old method of testing by clipped samples will be retained. There is some talk, however, of requiring that samples be pulled, in order that nothing be missed which would affect the true, clean content. Hence the conference. . . . . A change would affect only skins with hair long enough for textile purposes. Otherwise sheep and goat skins pay no duty.

Tests on Kirsner Blankets . . .

TWO HUNDRED and fifty experimental Kirsner army blankets are now going into service tests by the Infantry Board. While designed for military use, a patented process developed by Lieut. Harry Kirsner of the Philadelphia Supply Depot, Quartermaster

Corps, is equally applicable to the manufacture of commercial blankets and overcoatings, especially in short napped goods. . . . . Though woven with the same nap as the standard service blanket, the new material is declared to be warmer, lighter, softer and more resistant to water. Kirsner's process centers on the weaving of warp and filling threads of differing surface consistency, such as worsted and woolen. Interstices or air pockets similar to those obtained by extensive napping occur from the imperfect felting of the two kinds of yarn, with a resulting inner construction comparable to the highly napped outer surface of fine quality blankets.

Raw Silk Rally Short-Lived . . .

RECENT STRENGTH in raw silk prices, which had been heralded as denoting a turning-point toward textile improvement, has proved of short duration. Silk prices have fallen 10 to 15c. within the last ten days, and the situation is far from satisfactory. . . . . Manufacturers do not share the economists' confidence regarding end-August prospects. They are buying raw silk on a strictly hand-to-mouth basis, with one eye on the price trend in the suspicion that the history of the early summer period may repeat itself. Buying is sluggish; total raw silk contracts on the Exchange, Aug. 6 to Aug. 12 inclusive, were 144 against 604 in the preceding week.

Hosiery More Confident . . .

EXPERIENCE OF last six months in hosiery has not been such as to encourage these knitters to over-confidence regarding fall. So it is particularly significant that several large and usually conservative units have decided to produce for stock. These firms see the industrial depression as nearing an end and look for a lively hosiery demand in September. . . . . The curtailment of hosiery output in recent months, these firms believe, has reduced stocks to the point where a sharp upturn in fall demand might create a shortage.

Add New Uses . . .

WATERMELONS and miniature golf courses beckon to the cotton manufacturer. . . . . South Carolina watermelons are being shipped this season in cars lined with cotton cheesecloth with such success as to indicate an important new use for cotton, according to C. K. Everett, of The Cotton-Textile Institute. To protect the melons from friction, side walls and ends of the car were cushioned with straw, the latter being held in place with a covering of cheesecloth. . . . . Cotton duck or canvas enclosures as one means of fostering the all-year outdoor use of miniature golf courses which are growing at an amazing rate in practically all sections of the country, is the latest suggestion offered in connection with the studies for new uses for cotton being conducted by the Textile Division of the Department of Commerce.

Knit Underwear Production . . .

KNIT UNDERWEAR industry held its own during June. Unfilled orders at end of month totaled 1,634,257 dozen garments as against 1,607,124 dozen at end of May. New orders were 910,934 dozen as compared with 1,070,411 in May. June shipments totaled 883,801 dozen against 1,002,503 dozen in May.

World's Record Awning Uses a Lot of Cloth

Over 3,200 yd. of commercial bunting and 4,000 yd. of non-shrink webbing for one awning is thought to be a world's record. It was set by the recent erection of a sunshade over 69th Street in the outer reaches of Philadelphia. Twenty business places and an extra wide boulevard are now cooled by this covering which may be drawn back and forth at will. The awning was made in 18 sections each 10x85 ft. Around the four sides is a dark blue border, 10 ft. wide, and the numerals are a dark green on a white background. The job was completed by A. Smith & Son, a tent and canvas firm in Philadelphia which has been in business since 1867, in just two weeks after the contract was awarded. Cost was about $2500.

The ultimate product

KNITTED

Backed by a

By A. Henry Thurston

Assistant Editor, TEXTILE WORLD

KNITTED topcoatings and overcoatings are not new products, in fact they have been manufactured for 25 years or more; however, in recent years the field has been greatly expanded. Knitted overcoatings are here to stay, say their makers, and for the last two years have made a serious bid for general public acceptance.

Fabrics of this general type first came into prominence immediately following the War period, after manufacturers had gone through the experience of knitting cloth for puttees. Before then, knitted topcoatings were more or less unique and were not very highly regarded, due to the belief that they lacked the possibilities of making a place for themselves in the fabric world. Machines were not particularly adapted to this work and the styling was very ordinary and confined to the most staple types of merchandise.

The earliest types of knitted coatings were for top coats only and were made of worsted yarns. About 1919, roughly speaking, knitted coatings of woolen yarns entered the market in a definite fashion. These laid a new foundation for the business in providing the elements for development in a broad way. Conditioning of the goods, finish and other normal woolen factors brought the fabrics under control, and opened the way for the making of a variety of types with appropriate styling.

Economies in Production

There are certain inherent advantages which were recognizable even in the earliest knitted fabrics and which still persist. Knitted fabrics can be produced mechanically more economically than woven products. The process is relatively continuous, less floor space is required for the machines and there is less handling involved, due to the elimination of warping, etc. Greater relative values and increased wearability is claimed for knitted fabrics due to the characteristics of their manufacture.

One of the pioneers in the making of knitted coating fabrics was the Continental Mills, Philadelphia, Pa., which entered the field with the idea of knitting with woolen yarns rather than with worsted. They conceived the knitted construction as a basic method for the production of clothing fabrics, and worked along the lines that in its very differences were its elements of greatest value.

For several seasons this company occupied a unique position in this field. It was practically the only mill engaged continuously in the sole development of knitted woolens. It was not until the latter part of 1928 that other knitting firms seriously went into the marketing of this class of fabrics. Today there are several mills, a few heretofore noted in the underwear field, which have turned part of their equipment over to the production of knitted overcoatings. Specific instances relating to the experiences of Continental Mills are cited because of its pioneering efforts in manufacturing and distribution.

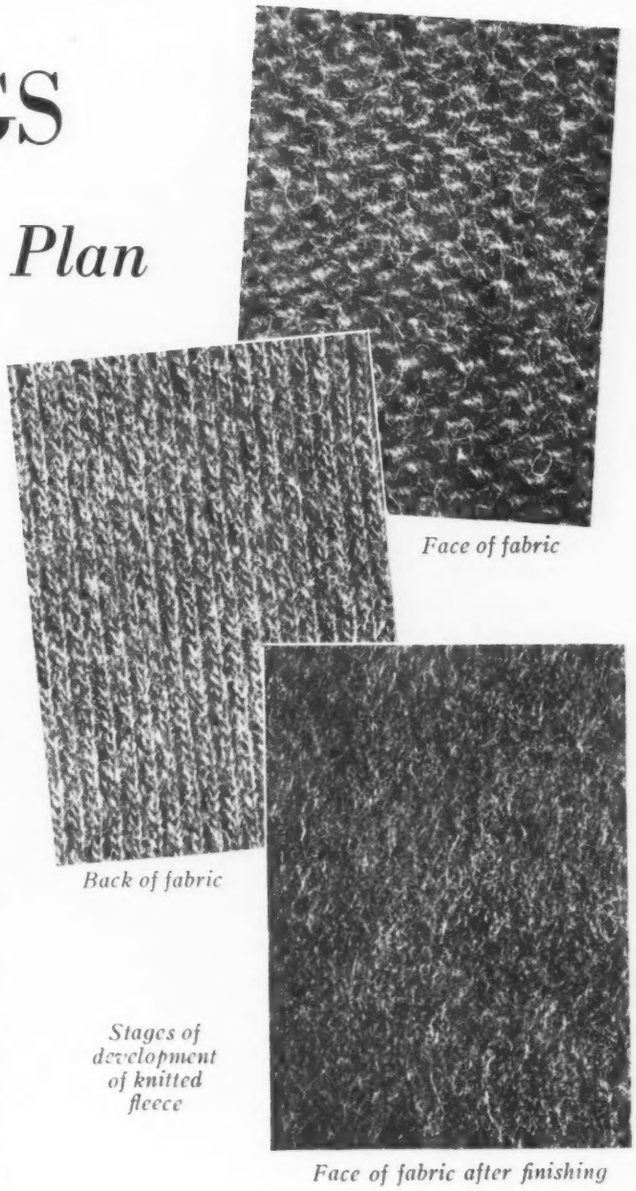
Made on Circular Machine

Originally it was felt that the circular knitting machines would limit the possibilities of design and that altogether new machines would have to be developed in order to give a full range of fabrics. The Continental Mills did go so far as to take up and patent a warp type knitting machine, the Springthorpe. It still holds this patent and several machines were actually constructed for use. Coincident with this, however, new possibilities of the present circular knitting equipment became apparent. It was realized that it would entail vast sums of money to build and install machinery of an altogether new principle, and so effort was put behind improving existing models. As a result, new attachments were evolved and new possibilities were developed in the circular machines. This work has been kept up in experimental laboratories with the result that machine development has kept in line with current styling. At the present time, hair fabrics as well as wool are being made by Continental. Most of the earliest fabrics made on the knitted principle were made with the plain jersey stitch, with little attention paid to finishing and stock selection.

The secret of knitted cloth stability lies in the finishing. However, the knowledge of what is to be done with the goods after they have been removed from the machines

OVERCOATINGS

Strong Merchandising Plan



Face of fabric

Back of fabric

Stages of development of knitted fleece

Face of fabric after finishing

is of primary importance and affects the selection of the fiber and stock that are to go into the finished product.

A Plan to Meet Sales Resistance

As merchants do not want to try the untried and, as some knitted fabrics had not given any too good account of themselves, many clothiers think only in terms of "another knitted fabric." The issue had to be forced in the face of a tremendous weight of resistance built up by the customs of years.

To meet this resistance it was necessary to provide merchandising plans that would win recognition, as outlets were needed not only for production but to spur development in fabric scope. It was soon realized that hit-or-miss selling would not permit a rapid enough expansion nor build acceptance for Continental fabrics, and that it was vitally necessary for the mill to exercise some measure of control over the distributive outlets.

To accomplish this, the firm built up a system whereby single houses handle individual fabrics, or certain ranges are confined to a few distributors. In certain trades, individual manufacturers act as sole distributors in their class of garments made of Continental fabrics. The various manufacturers in turn limit their sales to leading retail merchants in specific territories. In this plan, all those handling the fabric know what it is and have an interest in it right up to the time it reaches the wearer of the garment.

Although a confined system of distribution permits a closer balance of production and enables a more normal level of year 'round operation, it also has its problems. With only a few outlets, it is highly necessary that they all be successful. To insure this success there must be someone to point out the advantages of the product and the merchandising policy supporting it. Of all concerned, the fabric manufacturer is the most logical for this role.

Mill-Retailer Contacts

The working of the plan has caused a closer contact between the mill and retailers which has resulted in an increased interest in the consumer. An off-shoot of this is the retail service department of Continental Mills, a further aid in promotional activity.

This department consists of a manager and two men who travel about the country, contacting with retailers, and keeping up intimate relations between mill and ultimate sellers. The men in the retail service department often give talks to retail men and explain the fabrics and the merchandising method to the retailer himself or to his merchandise manager. This furthers the idea of having an interest in the fabric as well as the finished garment.

Most of these functions are generally regarded as being outside of the responsibility of a mill, yet they have proved helpful in establishing prestige for the product concerned, which is cooperatively handled and protected. Retailers are much in need of, and show great interest in this type of service. These are merchandising principles which should be applicable to any worthwhile product of sufficient character. It all ties in with the modern scheme of stressing inherent advantages of a fabric, supported, protected and identified right through to the consuming public, as opposed to the older method of letting fabric identity die out in the course of reaching the public.

The "great unnamed" is nobody's friend. Friends are a product's greatest asset and it has been demonstrated that they can be made. To complete the picture the finished garment must carry a labeled name and be sold to the consumer by a retailer who is interested and assured of profit and security against irresponsible competition.

The Buyer's Viewpoint

What happens to your goods after they leave your warehouse? What does the consumer think of them? Do they eventually enlist in the army of "returned merchandise?" If so, why?

On the assumption that textile manufacturers have more than an academic interest in the answers to these questions, we have asked Miss Lillian Edgerton, research counselor, of New York, to comment from time to time, in these columns, on specific problems which retailers encounter and which directly affect the man in the mill. Miss Edgerton has been a textile analyst and researcher for department stores, and is now serving as an independent consultant for both manufacturers and retailers.

Readers are cordially invited to offer comments on the points brought out by Miss Edgerton, or to submit questions for future discussion.—*Editor.*

Transparent Velvets

THE limelight of fashion is focused once again on transparent velvets for the fall and winter seasons. This may be a bit surprising to some in view of the difficulties formerly experienced with the easy damaging of the rayon pile. The velvets of last season showed considerable improvement in quality over those of the previous season. Judging by the first samples of the new fabrics, little difficulty will be found with respect to the perishable quality of the pile.

Considerable trouble was experienced last season because of the tendency of some transparent velvets to develop "bald" spots after very little consumer wear. Few if any pieces of velvet are now made with a single warp or the V-lock method of anchoring the pile; however many pieces are made which do not have the pile bound sufficiently to prevent it from rubbing out in a short time. This was true of velvets in high-priced as well as medium or lower-priced grades. A well-covered well-bound pile will be conducive to reorders, fewer adjustments and the maintenance of the coveted "reliable reputation."

Canton and Canton Faille for Fall

CANTON crepe and canton failles head the list as fall and winter staple fabrics. The demand for dull finished fabrics which have a full handle, coupled with the low cost of raw silk, should stimulate a record number of reorders and contribute appreciably to the profit side of the ledger.

There are already indications of the difficulties which will materially decrease the turnover and profits. Many of them arise from factors which the mill man can correct. The main points of dissatisfaction are:

1. *Slipping of the warp and filling yarns*—This is one of the outstanding difficulties which causes most of the complaints in consumer wear. Through the analysis of unsatisfactory fabrics, the following defects have been pointed out as the main factors contributing to this condition:

A. Low count.

B. Insufficient or improper finishing.

C. Improper tension of warp and filling yarns.

2. *Shrinking of the fabrics after laundering*—A few manufacturers have attached the guarantee "Washable" to their cantons. To many retailers this term not only implies dye fastness but also is cloth which will not shrink an appreciable amount after laundering. This guarantee, whether printed, spoken or implied, will in the majority of cases lead to complaints and dissatisfaction. It also seems ill-advised to guarantee this type of fabric as there is always the danger of shrinkage from the low yarn twist, low count, and variations in stock used in the warp and filling yarns.

3. *Chafed appearance*—Chafed spots in weighted cantons may be hidden temporarily by oiling up the fabric, but they will return when the oil has dried out. Unfortunately, this happens only too frequently after garments have been made, worn, and either laundered or dry-cleaned. (See illustration below.)

Special attention should be given to the inspection of weighted fabrics in dark colors, to be certain the fabrics have not this chafed effect before they leave the mill. Some of these fabrics have already found their way into the cutting-up trade.

This condition is more often apparent in crepes which have been improperly or over weighted. Consequently, special care should be taken in the weighting process to eliminate the possibility of chafe marks by—

A. Decreasing the amount of weighting used.

B. Applying the weighting with special care.

Unless some such steps are taken to remedy this condition, the returns on fabrics carrying these chafe marks will result in loss of money, and if the condition is allowed to remain unchanged, in loss of confidence in the manufacturer.

Silk Weighting and Construction

ANNOUNCEMENT has recently been made of the agreement among a number of silk manufacturers to stamp invoices and wrappers of weighted silks with a "weighted" label. Coincident with this an underwear manufacturer has stated that the manufacturers of silk underwear have solved their problems in returned merchandise by adopting the practice of using only pure-dye silks. A number of the broad-silk manufacturers have frankly declared themselves for pure-dye silks and are backing their statements by producing from 10 to 35% more pure-dye fabrics this season than last.

The general trend then is toward an increased production

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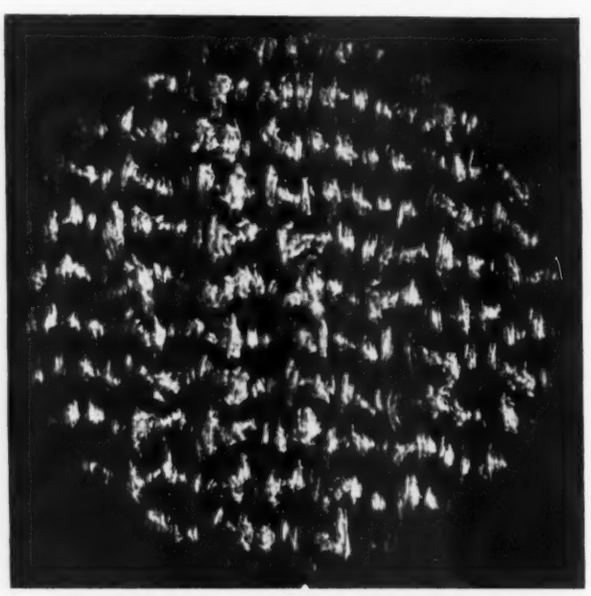
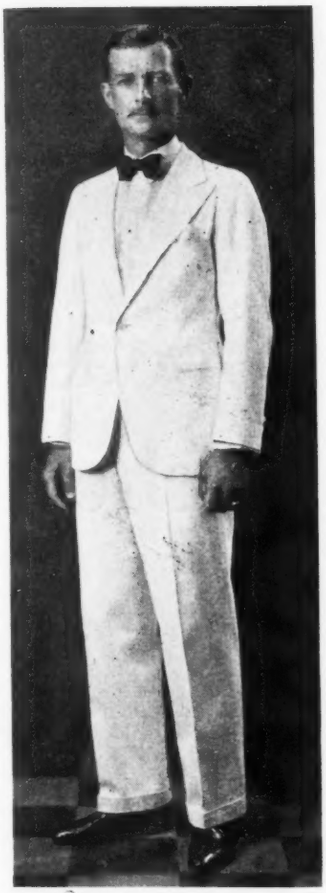


Photomicrograph of Chafed Spot in Weighted Canton



Male Plumage

By Stuart Warren Cramer, Jr.

MR. CRAMER, who appears on the left, describes himself in his manuscript, as author of "Unnatural History and Other Poems." Through exhaustive research, we have learned that he is also treasurer of the Cramerton (N. C.) Mills, Inc., which are understood to consume certain quantities of cotton, silk and rayon. The columns of TEXTILE WORLD are open to rebuttal from some man who, although possibly best known as author of "The Sex Life of Goldfish," may enjoy an incidental connection with a woolen or worsted mill.—*Editor.*

I ONCE knew a chap in Vienna, son of the Minister of Finance he was, who claimed to have a dress suit so saturated with champagne that when he took it off at night it stood up in a corner along with the rest of the family armor. Now this particular summer (1930), as we are all well aware, has been unusually hot, pretty much all over the country. I found that by the middle of June my dinner clothes had acquired the same faculty for standing alone that I have noted above, except that it was not champagne which had soaked into my suit and made it so stiff.

Well, I got tired of smelling either of sweat or gasoline every time I went out in the evening, and determined to do something about it. I shocked my tailor by asking him if he could not make me up dinner clothes that would wash. He didn't carry any such materials, and didn't like the idea, anyway, but I finally prevailed upon him to do the work—at a round price—if I would furnish the goods.

I obtained a piece of beautiful white cotton twill, not heavy enough to wrinkle, but not so thin as to be slazy and baggy. I shrunk this thoroughly and told my tailor to make a suit of it. There was nothing remarkable about this suit except that instead of being cut like an ordinary sack suit, the coat was cut like a dinner coat, with the lapels brought down to one button. He did a good job, but in spite of its coolness and attractive appearance, I hesitated to venture forth in it, for fear of ridicule.

Finally an occasion arose which seemed to call vehemently for this particular outfit. Jim Smith invited me to a radio broadcast. Jim was an old friend of mine, whose talents had been discovered by the cotton textile industry. He is paid a few hundred thousand dollars a year to run around the country preaching about the superlative qualities and manifold uses of cotton. So he was going up to the National Broadcasting Studios to tell the world, among other things, that cotton should be worn in all times and places, if you wanted to be really smart. Well, in honor of the occasion I put on my white cotton dinner coat and trousers, soft white shirt with the conventional white vest, black bow tie, and black socks and pumps. All hail to King Cotton, I sang to myself as I dressed.

I felt very well dressed during Jim's speech, but was horrified and humiliated a few moments later when we crossed the street to the St. Regis Hotel. Someone suggested that we go up to the roof and dance. Imagine my embarrassment and shame when my friend Jim demurred. "Better go somewhere else," he suggested. "They don't let you on the floor without a dinner coat here. Let's go where Stuart can dance."

I was white to the lips with anger, but restraining myself with admirable dignity I retorted courteously: "A fine cotton booster you are! I'd have you know I am wearing a dinner coat myself, and a better one than yours. I look better, feel better and smell better!"

"They'll throw you out," he averred.

"Yeah? That's what *you* say. I tell you I'm dressed in the pink of fashion. How do you ever expect to launch a sensible vogue, if everybody's scared to wear something different?"

While this friendly dialogue was taking place the rest were getting impatient to dance. "Come on, Jim," urged his wife. "Let's go up. I'm sure he looks very nice."

So we took the elevator to the roof. While waiting for the ladies, Jim approached the maitre d'hotel, head waiter, major domo, or whatever they properly call the genial arbiter of tables and behavior in that exclusive rendezvous. "See that rube?" he inquired, indicating me. "Will you let him in, in that rig?"

A glance of admiring appraisal rested upon me. "Sure we will, Mr. Smith," came the reply. "He's the best dressed man we've seen here this summer."

We supped and sipped and danced. Jim was terribly impressed by this triumph of sartorial elegance. Any misgivings he had felt that my outlandish costume might

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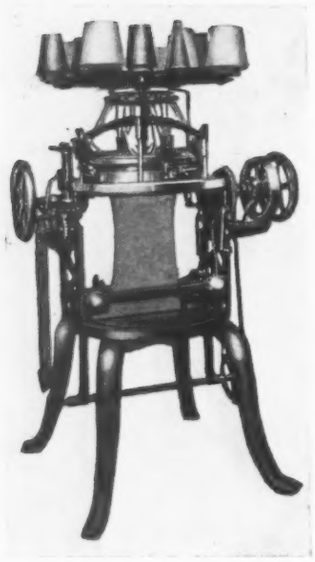


Circular knitting machine suitable for making sports wear fabrics

Another market for knit outerwear is suggested by the increased popularity in Europe of riding breeches made from woolen knit goods. In this article are described the methods used in manufacturing and finishing a knit fabric suitable for the type of garment favored by cavalry officers and sportsmen.

Woolen Knit Goods for Riding Breeches

By Herbert Philips

FOR some time woolen knit goods have been employed in making sports wear for both men and women. Until recently these fabrics have been used mainly for jackets, sweaters, knickers, and skirts; but are now finding use in the manufacture of riding breeches. In fact, riding breeches made from knit goods have been adopted by officers of various foreign cavalry regiments. The writer hears that one of the knitting-machine manufacturers is planning to bring out a machine that will produce a knit fabric which will rival gabardines, whipcords, etc.

Fabric and Its Manufacture

Thus far knit fabrics which have been used as substitutes for woven goods sold for riding clothes have been made on a circular knitting machine. At the recent knitting-arts exhibition, held in Philadelphia, it was learned that one knitting-machine manufacturer is building a flat-bed machine to make uniform and costume fabrics. In Europe the popular knit uniform cloth weighs about 32 oz. per running yard. It is knit on circular machines in cuts of 32 to 33 yd. and is about 56 in. wide. A cut weighs about 80 lb. in the grease. A narrower fabric is also sold, which runs 26 oz. per running yard. The most common colors are white, gray, and black.

Fabrics of this nature are generally made on an 8½-cut rib-body machine. The yarn can be a high quality Australian 20/2 worsted. A French spun yarn can be used as the finishing, and will eliminate any unevenness that might otherwise occur. Various modifications can be made, such as using 28/2 worsted yarns, and using a 10-cut needle machine.

Finishing of knit uniform cloths consists of fulling, scouring, dyeing, napping, and shearing. It is during these operations that the goods take on the properties and qualities which enble them to compete with woven goods. Fulling is mostly done the long way of the goods, the width of 56 in. being preserved as far as possible. The goods are fulled in the tubular form with the rib side out. They are run into the fulling machine damper than the usual run of goods, in order to preevnt too rapid shrinking. About 18 gal. of fulling liquor is required for an eight-piece set. The liquor should be composed of 12 oz. to the gal. of a good medium-titre fulling soap (say one-half red-oil and one-half palm-oil soap) and only 3 oz. to the gal. of soda ash. It should be noted that the alkali is kept at a minimum in order to prevent excessive shrinkage due to the goods heating up too much in the fulling mill. Fulling time is about one-half hour.

The felting is not as hard as is frequently given woolen knit goods, but serves to make the fabric solid and to break up the fibers so that the feel and handle is greatly improved. Since fulling tends to parallelize the fibers and distribute them evenly, it increases the luster of the fabric. Felting serves also to reduce the elasticity inherent in knit goods.

Proper Scouring Is Essential

Scouring is one of the most important processes in the wet finishing of this type of fabric; if it is not done properly, too much cover is developed, and the value of the goods is greatly impaired. As a matter of fact, these fabrics frequently shrink more in the washer than in the fulling mill; consequently precautions must be taken to prevent the goods from becoming too narrow. Shrinkage is prevented by placing the goods in the string washer and running in a small amount of water at 110° F. The gates and suds box are closed and a good suds is brought up. If a heavy, creamy suds should not develop after the goods have been running ten minutes, three or four pailfuls of the same soap used in the fulling is added to the washer. The goods are run in the first water for one-half hour to one hour. The gates and suds box are then opened, warm water at 120° F. is run in, and the goods are given a running rinse until they are free from soap. After this they are cooled and removed.

The directions given above are based on the assumption that the goods are made from undyed yarns. If colored yarn is used, a slight change is made in the scouring procedure. Colored goods generally contain so much loose color and dirt that a rinse before scouring is desirable. This is done by closing the gates and suds box; running in a barrel or a barrel and a half of water at 105° to 110° F.; and running the goods in this suds for

fifteen minutes to loosen up all dirt, oil, and free color. The gates and suds box are opened; warm water is allowed to enter the washer, and the goods are given a running rinse until nearly all the dirt has been removed, as is indicated by a fairly white suds. The gates are then closed and barely enough water to cover the folds is run into the washer. Four pails of soap, or enough to bring up a good creamy suds, is added. The goods are then scoured exactly as those made from white wools.

If the goods are dyed at once, they are only extracted and shaken out after the scouirng; but if some time expires before they are to be dyed, they are pulled out to the proper width (56 in.) and dried.

Dyeing and Finishing

Goods should be dyed as quickly as possible and with the least possible amount of handling, since the face or rib side of the goods will receive too much cover if they are worked too long or too severely. When the correct shade is reached, the goods must be cooled slowly, as otherwise they will shrink excessively in width. Cooling can be accomplished by providing the dye kettle with a port or opening on the side, about 4 ft. from the bottom. Cold water can then be run into the machine, and the warm waste water can flow out of this port. In this way there will be no sudden change in the temperature of the water.

After dyeing the goods are extracted and split. From here on they are handled like woven fabrics, first being stretched to the proper width on a tenter frame. Since the face or rib side has considerable cover, this must be removed, as it is desirable that the goods be finished with as clear or bare a face as possible. This cannot be obtained by shearing alone. Therefore the goods are wet out and gigged damp, using a very dull napper, or better, a well-worn teasle gig. Two or three runs are generally sufficient to bring up the fibers so that they can be properly sheared.

The goods are again dried on a tenter frame to a width of 56 in.; and are sheared to expose the wales, four to six runs will be necessary to accomplish this. The back is then cropped level. Next the goods are pressed with the back toward the plate. They are then steamed by wrapping them around a perforated shell and allowing the steam to pass through them for ten minutes. Finally the fabric is unwound; wrapped about the shell, opposite end first; and again steamed for the same length of time.

Singeing Worsteds

FOR woolens generally the process of singeing is not necessary, but in the case of worsteds there are many important reasons for this process. There is no question that by singeing it is possible to dispense with a large amount of shearing, thus saving time and labor.

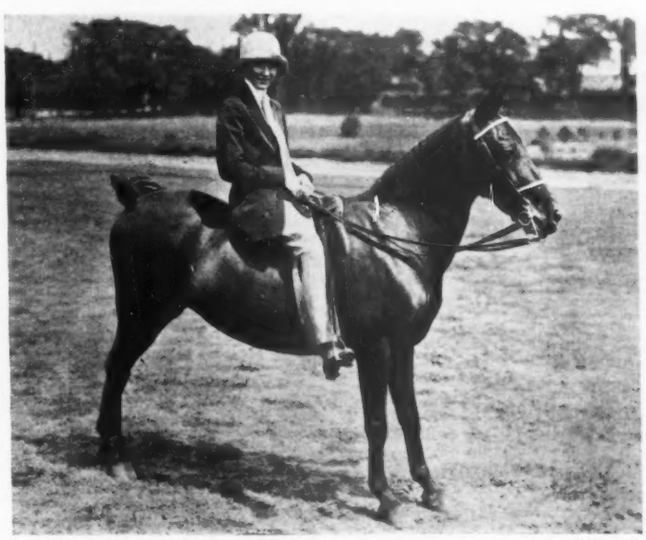
The action of singeing is quite different on vegetable fibers than on those of animal origin. Cellulose burns freely with little odor and leaves a fine ash. Wool burns less easily with a decided odor. Disadvantages cited by those who oppose the singeing of worsted fabrics are (1) deterioration of the goods, (2) the fiber becomes sharp and hard, (3) the color is affected, and (4) the odor is not pleasant.

Many prefer to singe in the gray, while others conduct this process either before or after dyeing. In the writer's opinion singeing in the grease has less tendency to effect the handle of the fabric, owing to the scouring and dyeing processes that follow. On the other hand, singeing after dyeing will give a sharp, hard touch, which is usually undesirable in most fabrics. Often the effect of singeing after dyeing is to turn the color, making it necessary to wash the fabric in an acid bath to restore the shade.

In the case of goods with raised or embossed patterns, clean cutting is impossible without singeing. Such fabrics as twills, gabardines, reps, tricotines, crepes, voiles, tapestries, and brocades are the most likely to come to the mind of the reader.

Plate singeing is extensively used in cotton finishing, but it has not made much headway in the woolen or worsted industry. This is due partly to the low inflammability of wool, and also because of the great amount of ash that is formed from the burning of the animal fiber.

The peculiar strong odor that comes from singeing is difficult to eliminate unless the processes of crabbing, steaming, and scouring follow. Over-singeing is less obvious in worsteds than in cottons, as it requires more heat to burn through the surface. Should this defect appear, there is no help for it. Wool, since it has poor heat-conducting properties, will stand quite high temperatures. However, should there be much cotton present, it is liable to catch on fire unless the utmost care is taken. The headings or tail ends of listings are the most common reasons for this trouble.



Fotograms

For comfort as well as smart appearance jodhpurs are now in high favor, according to The Cotton-Textile Institute. Gabardine, moleskin and Bedford cord are generally used in tailoring these costumes, but for hot weather riding habits of cotton gabardine are preferred by many. Photograph shows Miss May McCarty of Darien, Conn., at the Ox Ridge Hunt Club horse show.

Don't Be Afraid of the Microscope!

By Edward R. Schwarz, S.B., A.T.I.

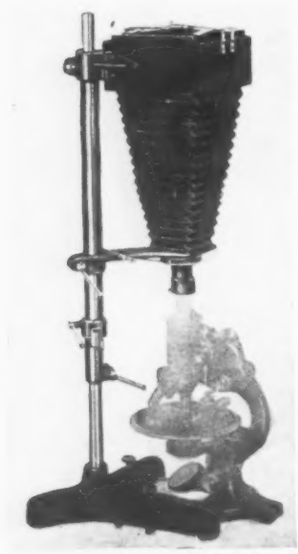
Article X
PHOTOMICROGRAPHIC APPARATUS

IN THIS article Professor Schwarz discusses the apparatus used in making photomicrographs. He emphasizes the necessity for perfect alignment of equipment and the importance of proper illumination and describes various devices which meet these requirements. Figures here omitted will appear in next installment

THE enlarged image of a specimen as produced by proper microscopic equipment on the photographic plate or film is an important method of recording data. Since the relative merits of the micrograph and of the photomicrograph have been discussed in a previous article (TEXTILE WORLD, May 24 and 31, 1930), we are concerned here only with the photographic equipment required to make the photomicrographic record. A later article will outline the technique involved.

Because no compound microscope is employed, the method of taking pictures with a micro-tessar lens in the camera is not, strictly speaking, photomicrography. In a broad sense, however, it may be so classed, since such a lens is really a simple microscope. The field of use is confined ordinarily to the picturing of larger areas (up to a square foot) than can be covered with a microscope, and while the depth of focus is not great compared with a regular photographic lens, it is amply sufficient for the purpose. Unless large (comparatively speaking) areas are to be photographed, the author believes that better results can be obtained by means of the binocular stereoscopic microscope, as will be described later in this article. (For examples of work done by this device see TEXTILE WORLD, May 31, 1930.) Magnification with the micro-tessar lens is low, but it will often prove to be exactly what is needed for some particular work. The cost is less than that of a microscope, but the utility is of course much more limited.

Coming now to what is usually considered photomicrography proper, all that is necessary fundamentally is to substitute the optical system of the microscope for the camera lens, arranging the former so that the image of the specimen is focused in the plane of the sensitized plate or film. The elaboration evident in any set-up of apparatus for this purpose is due to the fact that the whole optical system from illuminant to final image must be in perfect alignment and must be maintained so. Other apparent complications result from the means employed to direct and control the light rays as they pass into and through the apparatus. To these are added the various devices which make for a universality of adjustment. The camera and microscope may be used in either the vertical or the horizontal position, and where both methods are to be interchangeable, special clamps, etc., must be provided. While these accessories are at times essential, good work is possible with the minimum of equipment.

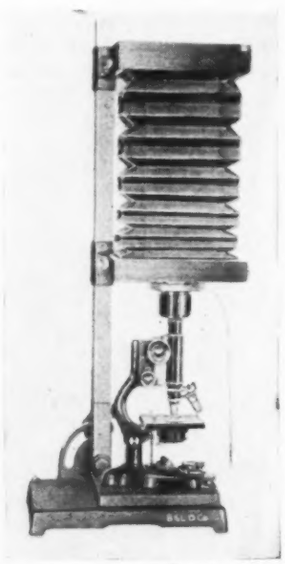


Spencer Lens Co.

Fig. 1. Simple stand for supporting camera vertically

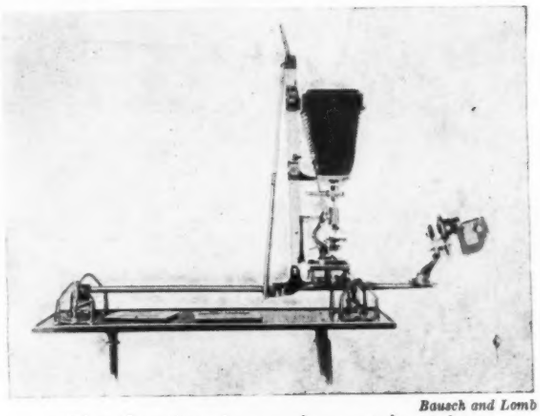
Bausch and Lomb

Fig. 3. Use of substage mirror with microscope in vertical position



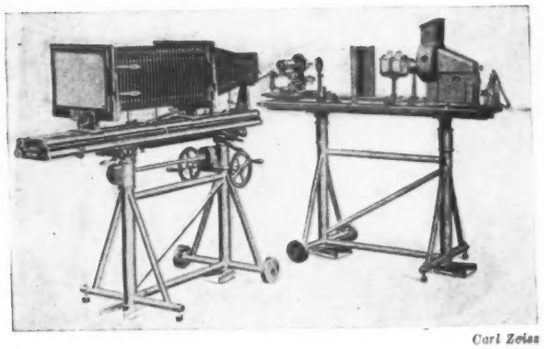
Bausch and Lomb

Fig. 5. Simple stand which enables use of substage mirror



Bausch and Lomb

Fig. 9. Stand carrying retainer for water cell as integral part of mounting



Carl Zeiss

Fig. 10. Stand with water cell between filter and illuminant

Fig. 6. Combined camera, microscope and illuminant

Whether the base employed is placed upon a table or other elevated horizontal surface or whether it takes the form of a bench in itself, it must provide a rigid support for the microscope and camera. It is not necessary that the source of illumination be mounted on this base, where such an arrangement would make the system unduly large or clumsy. It is vital, however, that the illuminant be so stationed that it will not be subject to jar independently of the remainder of the set-up, and also that there will be no danger of its changing position during use unless purposely moved. In the least expensive outfits the base is simply a heavy board or a metal casting. In the latter instance the weight of the material aids greatly in preserving the stability of the apparatus.

For more elaborate combinations the base carries an optical bed which ensures the alignment of the system when the components are properly adjusted, but which makes possible the sliding of one part of the apparatus or another relative to and along a definite axis. This scheme is always provided in the expensive research stands and in some there may be several such optical beds arranged pivotally or parallel with each other. (Figs. 9, 10, 11, 12). In this type of apparatus also, provision is often made for the elimination of vibration and jar by mounting a secondary base upon the primary member by means of a spring-hung or cushioned support. The former carries the photographic equipment, microscope, and illuminant directly. In some cases (Fig. 11) a heavy weight is provided to balance and stabilize the secondary base. This weight is underslung to provide a low center of gravity and lend generally improved stability to the unit.

On account of the expense and difficulty of elaboration, such a combination is hardly justified for the great majority of textile use and is only to be found in apparatus intended for the most critical work at very high powers and in a building subject to vibration. Some satisfactory modification of this type of mount could be arranged where use, say, in a mill laboratory, might be hindered by a serious vibration problem. Tennis balls or pads of live rubber can be arranged to provide inexpensive and quite satisfactory cushioning devices.

Control of Illumination

As has been emphasized throughout this series, the source and type, as well as control of illumination, are of vital consequence. In no microscopic work is this of greater importance than in photomicrography. To obtain as short a time of exposure as possible is of importance from many angles. For one reason, the shorter the exposure interval, the less chance there will be for vibration or jar to interfere with the work. For another, the photographing of specimens in process of treatment with reagents, etc., calls for rapid work to obtain a record of exactly the stage of transition desired. In some cases, too, the unavoidable heating of the specimen —particularly with paraffin mounts or rapid-method paraffin sections (Art. VII and VIII; Dec. 14, Dec. 21, 1929; Jan. 18, Feb. 15, 1930) may spoil a preparation before the exposure can be completed. Thus an illuminant of high power is essential.

Types of Illuminants

For many years the carbon arc was in almost universal use, but there are several objections to this form, aside from the somewhat high initial cost. Bausch and Lomb Optical Co. supplies a "Tungsarc" lamp for this purpose. High-powered Mazda bulbs, when prepared for projection work with either ribbon or monoplane filaments, are particularly satisfactory. For usual work, a 400-watt bulb in proper mounting (See Art. IV, Fig. 3b; Aug. 17, 1929) will prove convenient and of sufficient intensity to give a normal interval of exposure of from 1/50 to 1/10 of a second where transmitted light and "critical" illumination are employed. For direct illumination a piece of frosted glass should be used between the light and the miscroscope (nearer to the light), and with this arrangement the exposure may range upward from two seconds depending upon the reflecting power of the surface under examination, the magnification, etc. Very seldom will an exposure of more than ten seconds be required. Where filters must be used, a water cell should be placed between the filter and the illuminant to prevent overheating and consequent destruction of the filter. Such an arrangement is pictured in Fig. 10, where two such cells are shown in position.

Many of the illuminants intended for use in connection with photomicrography carry as an integral part of their

mounting a retainer for a water cell, immediately behind the filter support. (Figs. 9 and 12.) There is also available a special glass plate or disk, made of heat-absorbing glass, which may be inserted in the optical system to serve much the same purpose as the cell. Such devices are widely employed for projection microscopes and, likewise, to protect the film in motion-picture projectors when the film is stopped for any reason or at the beginning of a reel while the machine comes up to speed.

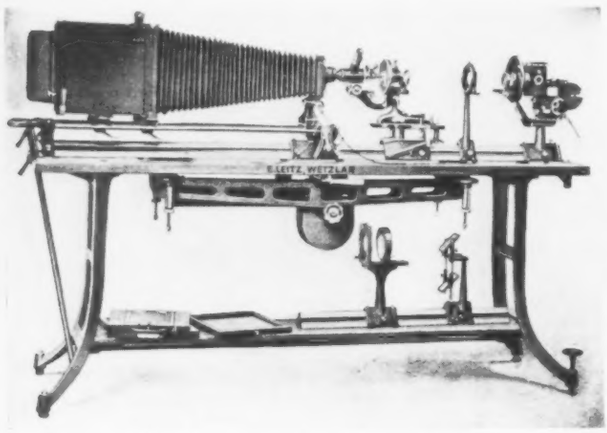


Fig. 11. Stand for advanced work E. Leitz

It must be remembered that in the high-powered Mazda bulbs, the filament is very close to its melting point. Thus every precaution should be taken in handling the light. It should never be jarred or moved rapidly while the light is on. The author has found it desirable to keep such illuminants on a firm stand of sufficient size to permit minor adjustment of the position of the light and to provide means for retaining it at any desired height. Such an arrangement is the stand pictured in Art. V, Fig. 5; Sept. 21, 1929. This is obtainable as a separate unit, independent of the drawing stand and microscope support.

Using High-powered Mazda Bulbs

It has already been emphasized that the optical system must be in perfect alignment. When an optical bed is used as a foundation for the apparatus, and when the miscroscope is not intended for any purpose but photomicrography, the alignment of the components of the system may be carefully adjusted and then need not be disturbed. Movement of any part along the optical bench will not change the alignment. The centering and adjusting of the various pieces of equipment is a slow and sometimes somewhat difficult procedure. It may involve as many as fourteen separate steps, which must be carried out in perfect order and several of which will have to be repeated one or more times.

For most textile work the operator will not want to tie up the microscope; and since it may quite conceivably be in use for other than photographic work a larger portion of the time, a simpler set-up is desirable. Use of the substage mirror, with the microscope either vertical (Figs. 3, 5, 6, 9 and 12) or horizontal (Fig. 10) is recommended. By observing the same precautions as would obtain for ordinary visual work with the instrument, it is comparatively simple to adjust the mirror so that central illumination is obtained. Somewhat greater flexibility is also obtainable by this method when the use of oblique illumination is necessary. Discussion of the technique involved is deferred to a later article.

This article will be continued in an early issue of TEXTILE WORLD. *Previous articles have appeared as follows:*

Article I, "Possibilities of Microscope in Textile Industry," April 27, 1929; Article II, "Types of Microscope Applicable to Textile Industry," May 18; Article III, "Handling the Microscope with Efficiency and Understanding," June 22 and June 29; Article IV, "Methods of Illumination," Aug. 17; Article V, "Useful Accessory Equipment," Sept. 21; Article VI, "Textile Micrometry," Oct. 26; Article VII, "Mounting Textile Specimens," Dec. 14, Dec. 21, 1929; Article VIII, "Preparing Cross-Sections of Textiles," Jan. 18 and Feb. 15, 1930; and Article IX, "Recording Data," May 24 and May 31.

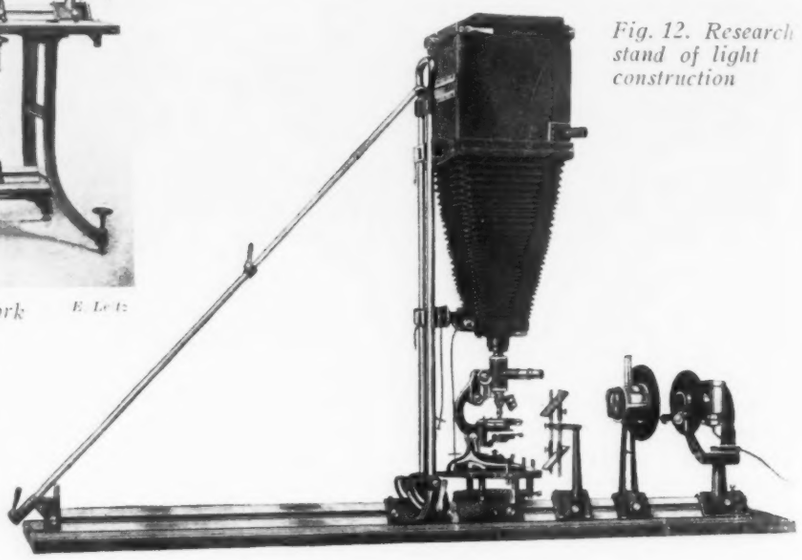


Fig. 12. Research stand of light construction

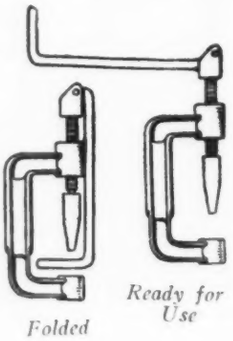
Powerful Rotary Belt Punch

By W. F. Schaphorst, M. E.

A ROTARY belt punch, which is an excellent device for use on thick belts is shown in the accompanying sketches. It is especially useful with belts of canvas, balata, and hair, which are laced with heavy lacing or which are belted together by means of belt clamps. The device is used principally for bolted joints. One view shows the punch ready for use with the handle in operating position. The other sketch shows how the punch looks when folded.

The method of operation is obvious: Simply turn the crank and the screw moves the punch down against the anvil, slowly, powerfully, and surely. A hole as large as $\frac{5}{8}$ in. or $\frac{3}{4}$ in. in diameter is cut with the utmost ease and precision. The distance from the punch to the inside of the frame is such that the frame serves as a guide for punching holes at the correct distance from the end of the properly squared-off belt. By the means of this device it is therefore possible to punch the holes in perfect alignment.

By means of a lateral spacing attachment the distance from center to center of the punched holes is kept always the same and always exactly what it should be. By using punches of various sizes it is possible to use this device for bolts or laces of any size.



Folded *Ready for Use*

In winding rayon, the instructress has an important role

Teaching Beginners to Handle Rayon Requires Well-Trained Instructress

By H. S. E.

CHOICE of an instructress is of great importance in teaching beginners the best methods to be followed in winding, quilling, weaving, or other operations. Any mill inaugurating a system of employee training should, therefore, give thought first to the selection and training of teachers. Not every skilled worker is capable of becoming a good instructress.

Selecting an Instructress

Suppose that the rayon-winding section is to be the first place to receive attention. There should be in this department several workers who would make good candidates for the position of instructress. The thing to do, then, is to select the one person most suitable. The overseer, second-hand, and section-hand, are the men who can give first-hand information as to the qualifications of the workers, since they are in daily contact with them. When these men have brought the list of prospects down to what they consider as the one best worker, the superintendent, if he so desires, can be given the opportunity of approving or rejecting the choice.

Obviously, there are several qualities or characteristics that a good teacher of beginners must possess: tact, discipline, perseverance, thoroughness, well-grounded understanding of the work and machinery, and familiarity with the nature and causes of manufacturing faults or defects in the product.

The matter of the age of the teacher has some bearing, although it is not all-important. Twenty to twenty-five is a good range of ages, since a worker between these ages has usually reached the point where she can handle the various situations arising in the course of duty, her experience standing her in good stead.

While education is not a paramount consideration, distinct advantages accrue from an instructress having a grammar-school preparation, with perhaps a year or two of high school. Personality counts for a good deal, and scores especially heavily with young girls. The teacher must be able to point out to the beginners their failings in no unmistakable manner, and yet do it in a way that will make them feel that it is entirely for their own good and that they must, therefore, make every endeavor to correct the faults. It is surprising how plastic the girls are in the hands of a capable leader.

One thing to watch closely when looking over a prospect for the position of instructress is to be sure that she has a clear, easily audible voice that can be heard without too great a strain on the part of the learners. Her enunciation must be good. Many costly misunderstandings are due to instructions not clearly given or not understood.

Must be Logical

In addition to voice and enunciation, the prospective teacher must be able to express herself in a logical way. She will have to convey certain ideas to the new workers daily; and in order to put them across properly, she must have the knack of conveying her meaning in a clear, concise manner.

The instructress must be up and coming. Indispensable requisites are neatness and tidiness, not only in her work, but also in her personal appearance. She need not necessarily wear expensive attire, but must be neat and tidy. There is nothing that will induce these habits in the younger element more readily and impress them more indelibly than a good example in the instructress

who is in daily contact with the girls. This spirit of neatness and tidiness will make itself manifest through the plant in due time, adding attractiveness to the workrooms, and improving the quality of the product.

Where a foreign tongue is spoken in the plant by large numbers of the workers and beginners, the instructress should be able to speak both English and the foreign language fluently.

Furthermore, she must possess executive ability in a high degree—that is, the knack of getting things done.

Having selected a girl for the job of instructress, how long a time is necessary to train her? It depends somewhat on the operation. For a simple one like winding, a bright girl, who is adept at the work, can learn the fundamentals in a week or two. This is provided all the details of the teaching position have been worked out in advance and the instructress merely requires a little time to familarize herself with them and digest them.

For the most part, these details will be rules and regulations, showing how the various phases of the work are to be carried out; how the cleaning is to be done, and how often; what various imperfections are called; their causes; and the remedies for overcoming or reducing them. All of these instructions should be "put in writing;" i.e., typed or printed.

During the period of teacher training, if we may borrow a term from pedagogy, there should be daily interrogation of the instructress, so that there can be no question but that she understands every part of her prospective duties. It is at these interrogative periods that the prospect will often disclose whether or not she is going to be suitable.

To finish the training a learner should then be intrusted to her. Here the scene shifts from a consideration wholly of the instructress to that of her relations with the beginners. What is she to teach the latter? Briefly she is to teach the standard methods of doing the work; conveying along with the "how" of the work the "why" of it also, so that after the new girls have gone through their training period they will be able not only to do the work efficiently, but will also understand why every move was made in just such and such a way, and what would happen if done in some other way.

Duties and Responsibilities

It has already been intimated that the instructress must be adept in the work which she is going to teach or supervise in others. She must be thoroughly versed in manipulating the machinery and must make each move in accordance, with the approved standard way of working. She must be expert, because she will have to impart this knowledge or skill personally or will have to supervise other workers who are going to teach the new workers the rudiments of the work. Then throughout the entire novitiate period the instructress must keep a keen eye on her students and call attention immediately to any infraction or violation of the approved practices.

Furthermore, she most possess a fair knowledge of the material going though the machines and must know whether or not it comes to her in a proper condition. She must also know what constitutes a perfect product from her machines. Again, she must be thoroughly acquainted with the faults in the product. She must know how those made in her section originated, whether due to manipulation or machinery, and whether repairable or not. She must have her learners report immediately any imperfections in the product when they receive it. She must, moreover, understand and make her pupils comprehend the fact that the struggle to eliminate or at least reduce defects in the product to a minimum is continual, not just a spasmodic effort to be undertaken when the workers are in the mood for it.

AMERICAN COMMERCIAL RAYON YARNS, GIVING DENIER AND FILAMENT NUMBER

DENIERS	15	25	30	35	40	45	50	52	55	65	75	80	100	120	125	140	150	160	170	175	180	200	240	250	300	450	600	900	1200	QUALITIES
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The Belamose Corp.																	30								42	66	66	126		
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New Bedford Rayon Co.																	24								44					1st and 2nd
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III. Acetate Process:																														
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Revised July, 1930, by Cox, Fuller & Mauersberger, consulting textile specialists, New York City.

Rapidly Expanding World Market for

American Bathing-Suits

By Warren Steele

Assistant Editor, TEXTILE WORLD

THE extent the United States and the rest of the world have become out-door-minded within the last five years is illustrated in the expansion in sales of knitted outerwear and in the increase in volume of worsted yarn taken by manufacturers in that branch of the industry. Outerwear is the most important consumer of English spun worsted yarns, taking approximately half the production of this type. French spinners have widened their market in outerwear yarns to an important degree within recent years although it does not represent such a large proportion of total production as in English.

According to statistics prepared by the National Knitted Outerwear Association, production of swimming suits in the United States has increased from 694,000 dozen in 1925 with a dollars and cents value of $16,322,154, to 1,428,571 dozen in 1929, having a value of approximately $30,000,000 in 1929. This indicates that production of bathing-suits in United States has more than doubled since 1925 in quantity and almost that extent in money value.

Wyckoff Knitting Mills

Exports Have Increased

While domestic production has more than doubled within five years, exports of bathing-suits have shown an even larger percentage of increase and data prepared by the Department of Commerce show that American-made bathing-suits are being as favorably received abroad as in the home market. In 1927 there was less than a half million dollars worth of bathing suits (knitted) exported from the United States. This total more than doubled in the following two years, there being more than a million dollars worth exported during 1929.

Best foreign customer for American-made knitted bathing-suits in 1929 was the United Kingdom which took 4,604 dozen or more than five times the number taken from this country in 1927; next largest buyer was the Argentine whose purchases have almost trebled in this period; next largest buyer was Germany which took in 1929 almost five times as many dozen as three years ago, being followed in order by Italy and France. One of the most rapidly increasing markets is Italy which in 1929 took 2,294 dozen, compared with only 230 dozen in 1927.

Although total export of bathing-suits is small in comparison with total production in United States, being approximately 3.3%, the value of the export field to American manufacturers is increasing at such a rapid rate, almost tripling itself in the last three years, that more attention is being devoted to it by large manufacturers than before. The most important market by far continues of course to be the home trade, per capita consumption of bathing-suits being estimated by the national outerwear organization as having increased from .145 in 1925 to .285 in 1929.

While other fibers are being used, the bulk of knitted suits are made from worsted yarns. The field is expanding each year instead of remaining stationary or expanding slowly as in men's wear, or decreasing as in yarns consumed for dress goods.

Worsted yarn counts used in bathing-suits were once standard, majority taking two-ply counts between number 20s and 30s in medium grades of wool. Manufacturers without exception used this type yarn until within recent years. Movement away from two-ply yarns by the bathing-suit trade has been rapid within the last two years and the bulk of manufacturers are now running on single counts instead of two-ply although there are concerns which refuse to change from the use of two-ply, believing that a superior wearing garment is made by use of the older type yarn.

Manufacturers first began to call for single 15s worsted in quarter blood grade, taking the place of 2-30s, the single being approximately the same diameter as the two-ply. It made the production of lower priced bathing-suits possible although no lower in grade of wool used, giving the fabric greater elasticity than the two-ply, according to those who have been converted to the single numbers.

The next step in development of single yarn type bathing-suit was the use of finer counts than 15s and many manufacturers within last three years began to use 18s and 20s or finer in place of the 15s with which they started, the yarns being bought from the spinner already dyed. This year yarns that went into 1930 bathing-suits were further refined and manufacturers began to call for 18s single made from 64s grade wool, the finest grade that has been in large call by this trade.

Although spinners feel that this count, spun in most

(Continued on page 83)

Calculations for

Speeds and Twists in Cotton Ring Spinning

By William King

THE object of this article is to discuss in as full a manner as possible some calculations relating to the performance of the spinning frame; the methods of evolving suitable time-saving constant numbers; and conditions determining the most practicable speeds of spindles, front rolls, etc., for certain set conditions.

It is obvious that the quality and nature of the yarn to be produced in accordance with the demands of the consumer must be the first consideration when determining suitable speeds and production at this frame.

In the case of a warp yarn that is spun on a strength basis, consideration must be given to the fact that exhaustive tests of the breaking strength of cotton yarn have demonstrated that the strength ceases to increase after the insertion of a certain number of turns of twist per inch. This number varies from 4.7 $\sqrt{\text{Count}}$ to 5.0 $\sqrt{\text{Count}}$, and there is evidence to show that a long-stapled cotton that has been combed will permit use of the higher twist factor mentioned to attain its maximum strength; while a cotton of shorter staple, about 1 in. in length, and carded, attains its maximum strength when carrying twist to the full extent of the first-mentioned factor.

IN THE case of band-driven spindles and line-shaft-driven frames—two heritages of which the modern textile industry is gradually ridding itself—the element of slippage plays an annoying part. How allowance must be made for this element in calculating speeds, twists, and productions is explained by Mr. King in the accompanying article. Many of his comments are applicable to tape-driven spindles and also to individual and group-driven frames.

Considering 30s-count warp yarn as a basis on which to work, it is assumed that the least strength compatible with the best behaviour of the yarn in subsequent processes is the desideratum; because the insertion of twist that gives unnecessary strength to the yarn serves no useful purpose, reduces production, and increases production costs.

Reduce Twist from Maximum

It is a good policy for the individual mill to experiment with twist in warp yarns, and determine in accordance with its own peculiar conditions the twist factor that gives the maximum strength. When this has been found, the twist can be reduced until a yarn is produced that is strong enough for all requirements, and there will then be no likelihood of lost production owing to excessively twisted yarn. Assuming that in the case of a 30s warp yarn, the highest strength is reached when the turns per inch equal 4.7 $\sqrt{\text{Count}}$, a working twist to produce a satisfactory yarn would be about 4.2 $\sqrt{\text{Count}}$, or 23.00 t.p.i.

In setting out front-roll and spindle speeds for this twist, several factors must be considered, the most important being the quality and evenness of yarn produced and the number of end breakages per frame in a unit of time.

The speed of the front roll controls production, and this can be as high as working conditions will permit; the spindle speed then being regulated by the twists per inch of yarn. There is no definite limit to this speed. For 30s warp yarn, with 23.00 t.p.i., to give a suitable strength a front-roll speed of 130 r.p.m. could be regarded as suitable. A front-roll speed of 130 r.p.m. with 23.00 t.p.i. necessitates a spindle speed of 9,397 r.p.m., according to straight calculation.

The intricacies of cotton spinning lie in the fact that these speeds cannot be universally applied to all spinning rooms. Each mill is, of necessity, its own criterion of the speed of its frames that will give the most beneficial results. If mill No. 1 is spinning the same range of counts as mill No. 2, from a mix of apparently equal value, on frames that are identical in construction, it does not follow that mill No. 1 can run its frames at the same speeds and obtain the same results. There may be a difference in humidity, in preparatory processes, or in skill of operatives, to mention only a few of the salient features.

When End Breakage Is Excessive

Suppose excessive end breakage is taking place at these speeds and an uneven yarn is being productd; it may be most economical to insert additional twist by altering the size of the twist change gear, which would reduce the speed of the front roll, the spindle speed remaining constant. If a new twist of 4.4 $\sqrt{\text{Count}}$, or 24.09 t.p.i. is used, the front-roll speed would be reduced to 124.1 r.p.m., which would reduce production by 4.5%. This is a considerable item in production, but it is better to lose this amount than produce an inferior yarn with its consequent evils.

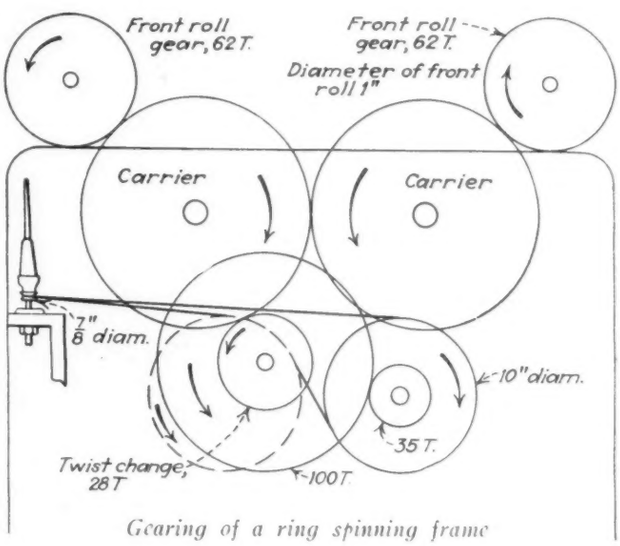
On the other hand, if it is necessary that the turns per inch be kept the same, excessive breakages can be reduced by lowering both front-roll and spindle speeds, and the most suitable changing place for this is the driving pulley on the line shaft. Assuming a 40-in.-diameter pulley is used on the line shaft for the above speeds, a 36-in.-diameter pulley would give a front-roll speed of 117 r.p.m., and a spindle speed of 8,457 r.p.m.

These decreased speeds would greatly increase the spinning qualities of the yarn, and bring about a greater regularity in strength.

When spinning better-quality hosiery yarns with a low twist on the ring frame, speeds are reduced by this method, as is also the case when spinning yarns from a very low-quality mix.

In frame spinning the modern tendency is to use rings of a comparatively large diameter to ensure a large package and reduced winding-room costs. High speeds are employed to allow of high productions. To follow this tendency, one must use a cotton mix of suitably high value, but this is preferable to a low-quality mix, low productions, and a yarn that is far from satisfactory in strength, regularity, and appearance.

In altering at one time the speed of the frame shaft, front roll, and spindles on frames driven from line shaft, two change places may be used—the driving pulley on the line shaft or the driven pulley on the frame shaft. The former change place is very convenient, as a split pulley can be fixed on the shaft in a short time, and the old pulley need not be removed entirely but only shifted a little to one side. It is easily put in line when required for use. If a change in driving pulley necessitates the use of one that would be inconveniently large or small, the frame-shaft pulley can be considered as a suitable changing medium. If a certain section of frames must be constantly changing speeds, owing to the wide range of counts spun and the production of small orders, two or three differently sized pulleys may be kept on the line shaft for each frame ready for use. Changing is then but a few minutes' work.



Gearing of a ring spinning frame

It is preferable for frames to run at a standard speed, but it is not always possible in practice.

In comparing actual and calculated speeds of spindles to determine the degree of slippage, it is essential that first of all the correct diameters of pulleys be obtained. The writer is experienced particularly with the rope drive. When the working portion of a rope-drive pulley is V-shaped, and the rope rests in the upper portion of the V, a true working diameter can be obtained by striking a line from one milled edge of the pulley to the opposite milled edge, over the widest part of the pulley, because it is at this milled edge that the rope makes a working contact with the groove. In the case of belt-driven pulleys, the diameter may be measured from one face to the other. Although the thickness of the belt affects the calculations slightly, the effect is so negligible that it may be ignored.

To test the degree of slippage between the line shaft and the frame shaft is a very simple operation. It is necessary first of all to obtain the speed of the line shaft. The average line shaft varies in speed if readings are taken at intervals, but this is a variation and not a loss due to slippage. Therefore in determining the speed several readings should be taken under normal working conditions and an average obtained. This average forms a reliable basis on which to calculate.

If the frame is rope driven, if the rope is in excellent condition, and if the correct diamteers of the pulleys have been obtained, the calculation becomes: Speed of line shaft $\times$ driving pulley $\div$ driven pulley $=$ speed of frame shaft. The speed of this shaft obtained by testing with a reliable speed indicator should be the same as the calculated speed; and if this is not so, there is something wrong. If the rope is worn and thin, slippage will take place because it has sunk to the bottom of the groove and is no longer gripping the sides. In this case the indicated speed will be considerably less than the calculated. The same formula is suitable for belt-driven frames.

If the rope pulleys have not been measured up to the milled edges and both diameters are smaller than they should be, the calculated speed will be too great and a percentage of slippage will be assumed that does not actually exist, because the correct ratio of pulleys has not been taken. If suitable precautions are observed in obtaining the speed of a rope-driven frame shaft, there will be a barely perceptible difference between calculated and actual results that can be entirely ignored for practical purposes.

Speed of Spindles

Assuming that the frame shaft is working without any slippage having preceded it, the drive between the tin roller and spindle whorl can be examined for loss in revolutions. The calculated speed of the spindles will be equal to frame-shaft speed times diameter of tin roller divided by diameter of spindle whorl.

To obtain the actual speed of spindles, a reliable speedometer should be used and at least ten spindles should be tested. The spindle bands or tapes should be in sound condition. From these readings an average can be obtained and compared with the calculated speed. On band-driven frames a loss of 5% to 6% is usually found at this point.

The primary cause of this loss is the nature of the driven, which is usually about eleven to one in ratio. An additional cause, particularly in the case of the band-driven frames, is the small area of contact made by the band on the spindle whorl and also on the tin roller. Much is also due to the high speed at which the band or tape travels. That there is excessive loss in the band drive at this point both on the frame and the mule when the ordinary type of spindle whorl is used is generally admitted. This loss has been responsible to a large extent for the introduction and growing adoption of the tape drive, which is far superior to the band drive.

When it has been determined that the frame is running without slippage except at the drive between tin roller and spindle whorl, the degree of slippage at this point must be ascertained; and any calculation which involves spindle speed must take account of this slippage. If this is 6%, and in this case it is the total loss, then

this figure may be used as a slip factor, taking the form of 0.94. Assuming that

A = Speed of line shaft,
B = Diameter of driving pulley,
C = Diameter of frame shaft driving pulley,
D = Diameter of tin roller,
E = Diameter of spindle whorl,
F = Calculated speed of spindles.

$$\text{Therefore } A \times \frac{B}{C} \times \frac{D}{E} = F$$

The actual speed of the spindles, according to slip factor, is calculated as follows:

$$A \times \frac{B}{C} \times \frac{D}{E} \times 0.94$$

The slip factor allows not only for slip, but also for the effect on calculations of spindle band thickness.

It will be apparent that, if there is excessive slippage within the frame, additional calculated twist must be inserted to overcome the loss, with a consequent slight decrease in front-roll speed. The slippage must always be kept as low as possible. In the case of certain frames, notably those that are belt driven, there is additional slippage in the exterior drive, and this must be allowed for in calculation by a higher slip factor.

In calculating the turns per inch of yarn, many factors immediately present themselves as having a direct bearing on the problem, and some of them are technical niceties which require treatment outside this article.

In practice the turns per inch inserted are obtained by dividing the actual spindle speed by the surface speed of the front roller in inches per unit of time, and this simple method is so nearly correct that its practical utility is fully warranted. From the particulars given in the diagram on page 45, which illustrates the principle of spinning-frame gearing, the spindle speed, without any allowances whatsoever, may be calculated as follows:

Line-shaft speed, 328 r.p.m.
Diameter of driving pulley, 40 in.
Diameter of frame pulley, 16 in.

$$328 \times \frac{40}{16} \times \frac{10 \times 8}{7} = 9{,}371 \text{ r.p.m.}$$

Speed of front roll would be

$$328 \times \frac{40}{16} \times \frac{35}{100} \times \frac{28}{62} = 129.6 \text{ r.p.m.}$$

Calculated turns of twist per inch would be

$$\frac{7}{22} \times \frac{9{,}371}{129.6} = 23.00$$

Assuming a total slippage of 6%, or a slip factor of 0.94, the spindle speed is reduced to 8,808 r.p.m.

The turns per inch then equal

$$\frac{8{,}808}{129.6} \times \frac{7}{22} = 21.62$$

The difference between calculated and actual turns is

$$23.00 - 21.62 = 1.38$$

In mill practice a spinning room may have been working according to calculated twist without allowances for a long time. The actual turns per inch in this case will be less than assumed, but each frame will have been working under identical conditions and a suitable basis will have been found on which to produce a yarn of sufficient strength and satisfactory appearance. It is obviously much better to know the actual slippage that is taking place so that production losses can be avoided and the actual turns being inserted can be ascertained.

The constant for twist is calculated as follows:

$$10 \times \frac{8}{7} \times \frac{100}{35} \times \frac{62}{X} \times \frac{7 \times 0.94}{22} = 605$$

Therefore the constant divided by turns per inch equals

$$\frac{605}{21.62} = 28\text{-tooth twist gear}$$

It then becomes a simple matter to divide the twist constant by the desired turns per inch for any count, and the result is the twist gear after accounting for slippage.

For the purpose of checking the front-roll speeds at the frame when a change in twist has been made, a constant number can be obtained which, when multiplied by the number of teeth in the twist gear, gives the revolutions. Example according to the diagram:

$$328 \times \frac{40}{16} \times \frac{35}{100} \times \frac{1}{62} = 4.629$$

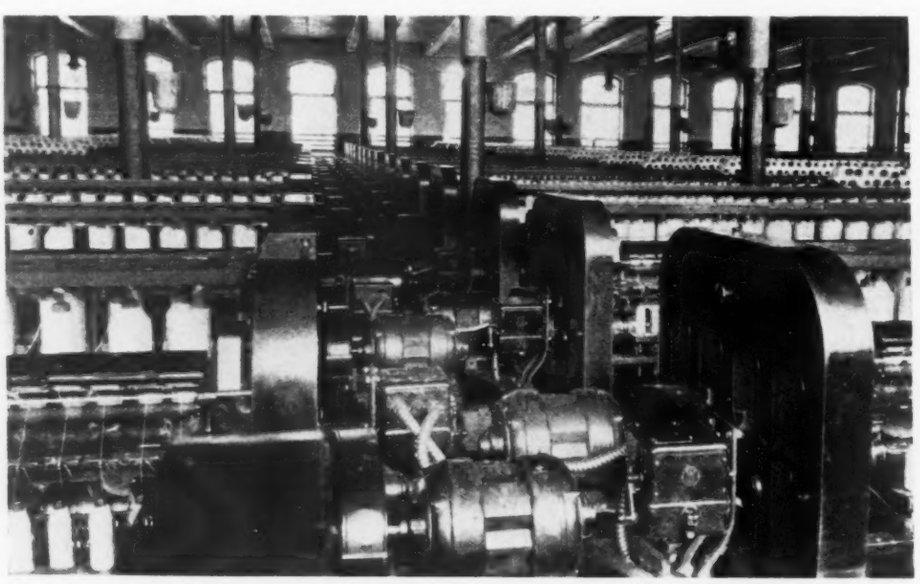
Multiplied by number of teeth in twist gear, this equals

$$4.629 \times 28 = 130 \text{ r.p.m. of front roll}$$

Thus, if the twist gear and constant are known, a simple multiplication enables effective checking of front-roller speed after any change in twist.

To obtain calculated production from a frame during a unit of actual working time, the actual revolutions of the front roll during that period should be taken, and on 30s count a loss of 6% should be allowed for doffing and breakages. This is the maximum allowance.

Valuable data is obtained of relative frame merits if a daily production record is made, which includes daily readings of hank indicators. When frames run only on one shift, it is sometimes considered sufficient to take weekly hank readings and compare productions at the end of that time, but it appears preferable to take daily readings to obtain a closer check on frame and tender performances. Any necessary action can then be taken.



In modern spinning rooms slippage is rendered negligible by motor-drives on the frames and tape drives on the spindles

How to Make Chain Drives Last Longer

By Charles R. Weiss

Chief Engineer, Link Belt Co., Indianapolis, Ind.

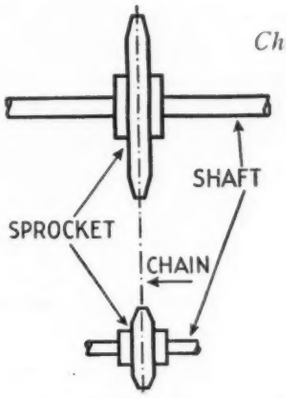


Fig. 1. Proper alignment is necessary

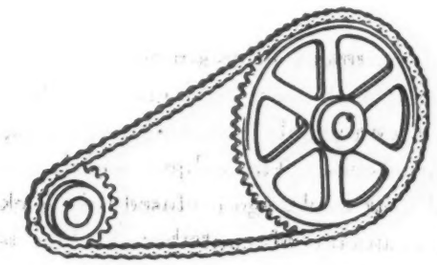


Fig. 2. Chain drives should be properly adjusted

Fig. 4. Clean chains by dipping in kerosene

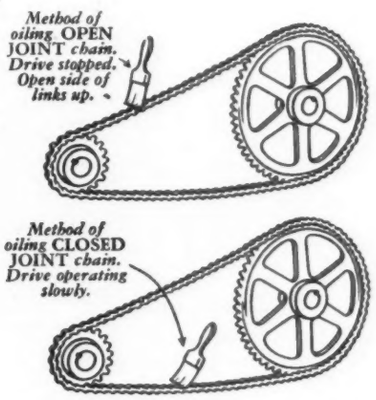

Method of oiling OPEN JOINT chain. Drive stopped. Open side of links up.
Method of oiling CLOSED JOINT chain. Drive operating slowly.

Fig. 3. Frequent oiling is required

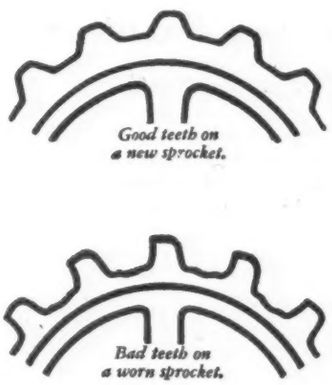


Fig. 5. Replace worn wheels with new sprockets

I WAS recently asked, "How can I make my chain drives last longer?"

After considering the question, I answered it as follows: "To make your chain drives last longer, there are just five simple things to do.

Alignment Is Important

"First, insure proper alignment. Be certain that sprocket wheels are in line on the shafts, as shown in Fig. 1. If the sprockets are not exactly in line, a side pull develops which concentrates the load on the side of the sprocket teeth and on one side of the chain. This faulty alignment results in excessive wear on both chains and sprockets.

"Second, make proper adjustment. The chain should be run just a little slacker than a belt—about as shown in Fig. 2. Too much tension causes undue wear on the chain and wasteful friction on the bearings. Not enough tension, of course, may allow the chain to jump the sprockets, or ride the teeth and break.

"Third, lubricate frequently. The chains should be lubricated at frequent intervals. A good grade of light cylinder oil should be used. A paint brush is a good thing for applying oil to the chain joints, as I have indicated in Fig. 3. Paint the open joints on open (upper) side. Oil the closed-joint chains on inside (upper side of lower run) while drive is running slowly.

"Fourth, clean regularly. Open drives should be cleaned regularly. Take the chain off, and clean it well by soaking and dipping in kerosene, see Fig. 4. Dry well, and oil it thoroughly before starting up again. Before shutting down a machine for a period of time, clean the chain and oil it with heavy oil or grease. When it is to be used again, re-clean the chain and oil with light oil.

"Fifth, have well-fitting sprockets. Last, but not least, look at the sprocket wheels from time to time to make sure that they are not worn enough to injure the chain. Before the teeth are worn to a hook shape, as shown in lower illustration of Fig. 5, the wheels should be replaced with accurately made and close-fitting sprocket wheels.

Time and Money Ahead

"By giving only ordinary attention to your chain drives you make them last longer and run better, and also reduce the chances of a breakdown. If these recommendations are followed, I am sure you will be time and money ahead and will get the best wear and service out of your machinery."

OVERSEERS' ROUND-TABLE

THIS department offers a new subject for discussion each week and gives readers' comments on problems introduced during previous weeks. The subject which was opened four weeks ago is closed this week and a summary of contributed ideas is given on opposite page

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Arranging Employment in Slack Periods

Editor, Overseers' Round-Table:

MOST SUPERS dread slack periods, for it takes considerable study to properly cut the production 50%, show no partiality and have the organization satisfied.

If the slack period extends for only a short time I believe in dividing the hours equally; preferring the week about system.

For a longer period I believe in giving the work to my oldest help, as these workers are almost all capable and reliable. We must consider that they have given years of service in prosperous times, so why shouldn't we show our approval and give them a break?

CHARLES KINNER

New Machinery Brings New Problems

Editor, Overseers' Round-Table:

I THINK the old employees should be given at least the option of operating any new machinery installed. If the employee refuses, then you can conclude that he is quite satisfied with his present job. On the other hand, if he accepts, he shows that he has ambition as well as a desire to keep abreast of this fast moving age. Encouragement of these workers leads to better cooperation and the accompanying satisfactory results.

S. R. COOMBS

Rewards and Penalties for Varying Grades of Work

Editor, Overseers' Round-Table:

THE QUESTION of whether an overseer should have the authority to, or make it a rule, to "fine" the operatives for poor quality work deserves quite a bit of deep thinking, concentration and discussion.

If you have an operative who cares little whether wages are high or low so long as they are enough to buy necessities, you would undoubtedly be disappointed in the results of any deduction from the pay envelope. Just as one poor apple will spoil those around it, a poor operative can undermine departmental teamwork. The writer thinks, therefore, that it would be better to make an example of such an employee by a dismissal or temporary lay-off. Such an idea would require tact, prudence and diplomacy on the part of the overseer if friction were to be avoided. Incentives have been suggested as a sure cure for the ailment of poor work.

J. A. WEBB

The Overseers Discuss

"THERE are occasions," Superintendent Chase addressed the overseers, "when it is necessary for the overseer to put in considerable time and work in addition to his usual schedule. While I was talking with one of you the other day about overtime rates for operatives, it occurred to me that we might well discuss the question of whether the overseer should receive some additional reward for any extra work which it is necessary for him to do.

"I might add," Chase smilingly glanced about the group, "that I wouldn't ask the question if I wasn't confident that you'd really think it through and not all rise with glee and shout 'Yes, we want extra pay for extra hours.' Well, what do you think?"

"Boss, I hope nobody tells my wife," Bill laughed and answered, "but I must say that I don't believe the overseer should receive any addition to his pay for any extra time which it is necessary for him to put in. We don't work on an hourly basis like the operatives, and we really don't get paid for a certain number of hours a week. We are really paid to do a certain job, and if, at times, it is necessary to work more than the usual number of hours, that too is part of the job. Few can get to be an overseer or hope to advance further if they stopped thinking when the whistle blew. You might just as well pay me extra for reading a technical article that will help me run my department better as to give me something additional just because some emergency comes up and I have to work at the mill overtime. It's all part of the job for which we are paid."

"Bill has expressed my views to a great extent," Jerry joined in, "but since we conduct these discussions about mills in general rather than this particular mill, I would like a qualify Bill's statement. If the mill treats the overseers as regular salaried

The Question of Smoking

Editor, Overseers' Round-Table:

SMOKING SHOULD not be tolerated in any department of a mill unless it be in the boiler room during the worker's own time.

If smoking is allowed during working hours it only leads to camping, laxity and loss of time. We are not paid for that and no sane man would expect it.

Their Own Overtime

men, pays them if the mill is shut down a few weeks, allows them some vacation and things like that, then Bill is right; the overseer should not be paid for overtime. If, on the other hand, the policy of the mill is to pay the overseers the full amount only if they have worked a full week, then I think they should be paid for overtime."

"I think Jerry lays too much emphasis on the policy of the mill," Bill came back. "It is more a question of what I, myself, think is my job. If I think too much along the lines of 'the mill doesn't do this so I won't do that' I won't get very far."

"I may have a thought to add," Pete spoke up, "and just throw it out as a suggestion. I think we should go along and work overtime, when we find it necessary, without thinking of getting paid for it, but if, at the end of the year, the management finds that such unselfish work has helped the mill to make a profit, then I think a bonus might well be considered as an incentive to, and reward for, loyalty to the job."

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What are *your* thoughts on the topic of an overseer working overtime?

Overseers and others are invited to discuss this and other questions brought up in the super's talks. Letters accepted and published will be paid for without regard to length. Brevity is desirable.

The fire hazard is so great in the cotton, mixing and picking rooms that I would make it a punishable offence to take a match into these rooms, much less to smoke.

A. COOPER

Editor, Overseers' Round-Table:

I HAVE noted with considerable interest the comments that have thus far been made on the subject of smoking in the mill.

From my own point of view the question should have already been so well settled that it would not have bobbed up again, but since it has it is always possible to produce some interesting side-lights on this or any similar question. However, my own thought is that the best solution to the question is reasonable working hours and sufficiently well paid employees, including supers and overseers, to make their jobs worth more to them than a non-essential habit. I agree that a people who are ruled least are ruled best, but there must be at least a few simple rules and regulations in all business and manufacturing establishments, and in textile plants a no-smoking rule should certainly be incorporated and rightly enforced; using the words of one of your contributors, "the mill manager who is unable to cope with the situation should turn his job over to more capable hands."

A super or overseer who cannot think clearly and whose efficiency is at a low ebb until he steps outside the mill every few minutes and takes a puff from a cigarette, is not a free man but is a slave to his habit and needs Keely treatment. Anyway, if it can be proved that a certain amount of nicotine in the system is necessary for the happiness and efficiency of textile employees, then the problem is one for the tobacco manufacturers to work out rather than the textile operators, and it ought to be done on some basis other than putting fire at one end and a slave at the other, as fire is certainly too great a hazard to condone.

Undoubtedly every textile plant of any appreciable size has a few cigarette fiends on its pay roll. It is also thoroughly possible that there can be found in every such plant a few dope fiends who can work more efficiently if they can get a few tablets a day or a few sniffs a day or a shot in the arm. Likewise, the number is legion who will claim that their efficiency is greatly increased by three or four bottles of Coca-Cola a day. Now in justice to all of these different classes, why should not the drug fiend have a drug dispensary in the plant, or the Coca-Cola fiend have a soft drink stand just the same as the cigarette fiend has a smoking room? Now add to these conditions, the bookworm and the lovelorn lads and lassies, and along with other employees who make dancing, boxing and such other sports their weakness and provide places for all of these in the shape of reading rooms, dance halls, parlors and gymnasiums, which should be done if you want to be democratic, you will find that you have turned your plant into a carnival midway rather than a systematized place of business.

"OLDER BROTHER"

Editor, Overseers' Round-Table:

HAVE BEEN reading your round-table talk with much interest and I am sending my opinion on smoking in the mill. Allowing smoking during working hours, I believe is a loss to any concern, while it may not show on the surface. Employes in the habit of smoking are as a rule on the lookout for a chance to get away for a few puffs. If it happens to be one of the floor men who is tied up on a long job, he will leave on the pretense of going after something, allowing the machinery to stand and causing a loss to the operator, his own time, as well as a loss in production. In my opinion it is a bad habit and should not be allowed.

A. J. L.

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Summary of Discussion on Smoking

Allowing smoking in the actual operating rooms of a mill being obviously out of the question, the contributions arranged themselves fairly evenly into two camps. One group, in the belief that the best results could be obtained by regulation rather than outright condemnation, favored the establishment of smoking rooms which would be adequately fireproofed. It was then left to the overseer to see that the privilege was not abused and that the workers secured the benefit of the relaxation without crippling production. The other group, admitting in the main that they themselves smoked, outside hours, believed that the habit should be checked at the mill door and no compromise made with the no-smoking rule. This group believed that smoking could and should be stopped during working hours.

NEWS about MEN

CHARLES CANNON, president of the Cannon Mills, of Concord, N. C., has been appointed a member of a committee to represent North Carolina which will operate an industrial and economic body for the benefit of the southern industry and workmen.

F. B. GORDON, president of Columbus (Ga.) Mfg. Co., recently resigned the presidency of the Columbus Country Club.

JOSEPH S. MASON, president of Joseph S. Mason & Sons, Westboro, Mass., and family, are at Provincetown, Mass., for the month of August.

MATTHEW P. WHITTALL, president and treasurer of the M. J. Whittall Associates, Ltd., Worcester, Mass., and MRS. WHITTALL, spent the first part of August on a cruise in their yacht from New London, Conn., along the eastern New England coast.

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WILLIAM W. WINDLE, president and treasurer of the W. W. Windle Co., Millbury, Mass., has been elected president of the reorganized Millbury Savings Bank.

WINTHROP G. HALL, president of the Charlton Woolen Co., Charlton City, Mass., and MRS. HALL are passing the month at the Wintergreens, Washington, N. H.

L. N. LITTAUER, head of the Gloversville (N. Y.) Knitting Co., is recovering from illness in a Boston hospital.

B. H. BRISTOW DRAPER, president of the Draper Corp., Hopedale, Mass., has entered the hall of fame in golf, having made a hole in one of the Whitinsville (Mass.) Golf Club on Aug. 10. He was playing with HAMILTON W. THAYER, ANDREW MAIN and ERWIN N. DARRIN, all business associates.

F. J. ASHE, president of the Ashe Knitting Mills, Rensselaer, N. Y., is a director of a newly organized industrial commission formed in that city to promote civic welfare.

EDWIN H. MARBLE, president of the Curtis & Marble Machine Co., Worcester, Mass., and MRS. MARBLE, are passing the summer in Warrenville, Conn., where they have as guests GEORGE E. MARBLE and family of Worcester.

CAPT. ELLIOTT WHITE SPRINGS, vice-president and treasurer of the Fort Mill (S. C.) Mfg. Co., recently presented the Fort Mill troop of Boy Scouts, a lot on which a club house will be moved from its present location in another part of the town.

HAYDEN KLINE, of Cleveland, O., was made vice-president in charge of plant operations and A. A. MURPHY, also of Cleveland, was elected vice-president in charge of sales, at a meeting of the board of directors of Industrial Rayon Corp., held in the South Covington, Va., plant. Both men will maintain headquarters in Cleveland and alternate between that city and Covington.

WILLIAM C. ALEXANDER, vice-president of Elliott Hosiery Co., New York, has been elected vice-president of the Campbell Silk Hosiery Mills, Lambertville, N. J., manufacturers of 42 and 45 gauge hosiery.

JOE A. FARMER, of Anderson, S. C., assistant treasurer of the Gossett Mills, will not be transferred to Charlotte, N. C., as southern sales manager for the Chadwick-Hoskins group, which is controlled by the Gossett interests, as had been planned by these mills and announced recently. Other changes have been made since the proposed transfer, and Mr. Farmer continues to hold his present position as assistant treasurer of the Anderson plants, and will retain also the office as sales manager for South Carolina, it was announced at Anderson last week.

ADDISON E. BULLARD, treasurer and agent of the Caryville (Mass.) Mills of the Taft Woolen Co., and family, are passing the summer in Harwichport, Mass.

RICHARD LENNIHAN, for the last three years treasurer of the Hamilton Woolen Co., Inc., Southbridge, Mass., is prominently mentioned as successor to ANDREW G. PIERCE, as president of the American Woolen Co., in case of the latter's retirement.

W. GRADY GASTON, has been elected executive secretary of the Gastonia (N. C.) chamber of commerce and will assume his new post the middle of August. For the last eleven years he has been connected with the Armstrong chain of mills.

W. E. Beattie, former head of the Victor-Monaghan chain of mills, and former president of the American Cotton Manufacturers' Assn., has been elected a member of the board of directors of the Textile Hall Corp., which is promoting the Southern Textile Exposition, to be held in Greenville, S. C., in October.

FREDERICK A. JACOBS, secretary and treasurer of the E. H. Jacobs Mfg. Co., Danielson, Conn., is spending the summer in Harwichport, Mass.

EDWIN G. NORMAN, secretary of the Cranska Thread Co., Worcester, Mass., and family, are spending the summer in Wolfeboro, N. H. A daughter, Hope, will be presented to society in Worcester on Sept. 17.

PAUL H. WILSON, secretary and auditor of the Graton & Knight Co., Worcester, Mass., spoke on the "Thirteen-Month Calendar" before the Kiwanis Club of Worcester on Aug. 8. He was presented by FREDERICK E. BARTH, vice-president of the company, a member of the club.

SAMUEL A. STONE of the southern office of the Draper Corp., Atlanta, Ga., is on a visit to the main plant in Hopedale, Mass.

JAMES BUNCH, of Statesville, N. C., has gone to California where he will have charge of agencies in Los Angeles and San Francisco, for the sale of products of the Statesville Cotton Mills, of which his father, F. B. BUNCH, is secretary and treasurer.

R. W. GENTZLER, formerly of Chicago, was recently appointed sales manager of the Racine Feet Knitting Co., of Beloit, Wis.

R. P. DEAL, manager of the Deep River Mills, Randleman, N. C., has resigned, effective Sept. 1.

F. R. GREENE, formerly general manager of the Atlas Knitting Co., Amsterdam, N. Y., is now located at Seattle, Wash., where he has embarked in business.

W. H. GIBSON, JR., is now assistant general manager of the Mansfield and Jennings Cotton Mills, Lumberton, N. C.

DUDLEY C. SMITH, former superintendent of the B. B. & R. Knight, Inc., Mills, Manchaug, Mass., now located in South Carolina, is passing his vacation in his former Manchaug home.

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A. STANLEY LLEWELLYN, superintendent of the Camden (S. C.) Cotton Mills, following his election to commander of the South Carolina department of the American Legion at the annual convention held in Columbia, was tendered a banquet by the Camden post, of which he is a member. MAYOR R. M. KENNEDY, of Camden, presided at the banquet.

HARGRAVES GILL, superintendent of the Westboro Weaving Co., Greenville, S. C., and MERTON DUXBURY of the same company, are passing their vacations at their former homes in Westboro, Mass.

RAYMOND H. SCHUSTER, superintendent of the Schuster Woolen Co., East Douglas, Mass., and MRS. SCHUSTER, are passing a vacation in Blue Ridge, Summit, Pa.

George A. Sloan, president of The Cotton-Textile Institute, beside the microphone on the occasion of the "Salute to the Cotton-Textile Industry" broadcast recently by the Westinghouse Electric & Mfg. Co.

JOHN HALL, former superintendent of the print works of the Hamilton Woolen Co., Southbridge, Mass., quietly observed his 93d birthday anniversary on Aug. 10. He is the town's oldest man both in age and in length of residence.

STANLEY M. CHENEY has resigned as assistant superintendent of the Litchfield Shuttle Co., Southbridge, Mass., to accept a position with the U. S. Bobbin & Shuttle Co., Manchester, N. H.

WILLIAM THORNE has been promoted to the position as assistant superintendent of the market analysis department of the Mohawk Carpet Mills, Amsterdam, N. Y., succeeding R. E. HARRISON.

ROBERT MEEK has severed his connections as boss spinner with the Barbour Flax Spinning Co., Greenwich, N. Y., following 63 years of service.

C. D. BOLING, is now master mechanic for the Hampton Division of Pacific Mills, Columbia, S. C., after serving as master mechanic for the Richland Cotton Mill, Columbia, for 35 years.

CHARLES S. MORRISON, oldest employe of the Bigelow-Hartford Carpet Co., Thompsonville, Conn., retired Aug. 8 after 63 years of active service with the company. He started at the age of 11 and except for three years spent on a farm in early years has worked for the carpet company and its predecessor the Hartford Carpet Co. Mr. Morrison is 77 years old and was head of the card cutting department for many years up to the day of his retirement.

JAMES A. QUINN, foreman of the card manufacturing department at the L. S. Watson Co. plant of the Watson-Williams Mfg. Co., Leicester, Mass., completed 61 years in the employ of the company on Aug. 5. He is the oldest employe in the point of consecutive years of service, with W. A. BELL, a 59-year employe, next.

WILLIAM SINGLETON has been awarded the longest term service medal given annually by the Bibb Mfg. Co., Macon, Ga. He is with the dyeing department, No. 2 mill, and has been with the Bibb Co., for 36 years.

THEOPHILE TREMBLAY, a former overseer for over 30 years for the Southbridge (Mass.) Printing Co., now the Southbridge Finishing Co., is in a critical condition as a result of a shock.

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BENJAMIN F. RUSSELL, for more than 45 years second hand of ring spinning for the Quinebaug Co., Danielson, Conn., has resigned his position to retire from active work. He is 83 years old.

OLIVER MARSHALL, Linwood, Mass., has accepted a position as overseer of the cleaning department of the Whitin Machine Works, Whitinsville, Mass.

CHARLES H. FENN has become associated with Cannon Mills, Inc., Philadelphia, and will assist in covering the Philadelphia market.

ALFRED H. BOOTH was retired on a pension on Aug. 1 by the American Steel & Wire Co., after 55 years of continuous service at the North Works of the company in Worcester, Mass. He was at one time a foreman at the Central Works of the company in the same city.

W. E. TARRANT, of Piedmont, S. C., a graduate and former professor in the textile department of Clemson College, South Carolina, has accepted the position as head of the weaving and designing department of the Auburn Polytechnic Institute.

W. O. RUFFIN, of Warrenville, S. C., is now overseer of weaving at the Buck Creek Cotton Mills, at Silura, Ala.

Obituary

Robert M. Williams

Robert Martin Williams, treasurer of the Millville (N. J.) Mfg. Co., and the Mays Landing (N. J.) Water Power Co., cotton goods manufacturers, and also a member of the firm of George Wood Sons Co., Philadelphia, selling agents for these mills, died at his summer home, Cape May, N. J., Tuesday, August 5, after an extended illness. Mr. Williams was 57 years of age. He was a member of the Union League of Philadelphia, Sons of the Revolution, Rittenhouse Club, Philadelphia Country Club. He is survived by his widow, a son, Robert M. Williams, Jr., and a daughter.

James H. Sanders

James H. Sanders, formerly connected with the textile industry at Sandersdale, Southbridge, Mass., died recently at his home, 66 Queensberry St. He was 78 years old and a native of Crompton, R. I. He was a graduate of East Greenwich College and was for many years in charge of the textile and color printing plant of the Sandersdale Print Works. The company was founded by the family and the town named for it. Mr. Sanders was head of the company for many years.

Edward T. Ward

Edward T. Ward, overseer at the Broad Brook Woolen Co., Broad Brook, Conn., died at his home in that town August 5. Mr. Ward had been connected with the woolen company for the last 33 years and was born in Broad Brook, February 12, 1872. He was educated in the public schools of that town and had been connected with the woolen industry most of his life. For many years he was overseer of [illegible] department of the Broad Brook Woolen Co.

William A. Gallup

William A. Gallup, formerly director and treasurer of the Arnold Print Works, died in Paris on Aug. 9. He was 78 years old. Funeral services were held at the American Cathedral. It is expected that the body will be sent home on the next trip of the Ile de France.

W. S. Forbes

W. S. Forbes, capitalist of Richmond, Va., one o fthe organizers of the Edna Cotton Mills, at Reidsville, N. C., in the '90s, and for some time the president of the company operating the mill, was found dead in his bed Wednesday morning at his home.

Clark M. Stem

Clark M. Stem, of East Stroudsburg, Pa., silk manufacturer, died suddenly of heart trouble. He was 52 years old and was one of the founders of the Lenape Silk Co.

Judson E. Drewry

Judson E. Drewry, 71, cotton buyer for the Georgia-Kincaid Mills, Griffin, Ga., for the last ten years, died recently at his home there, following an extended illness.

H. L. Wittnebel

Herbert L. Wittnebel, vice-president of the Commonwealth Color & Chemical Co., died July 23.

NEWS about MILLS

Cotton

Autauga Cotton Mills, Prattville, Ala., which manufacture crashes, coverts and seat covers, have increased their operating schedule from four to four and one-half days per week.

Powdrell & Alexander, Inc., Danielson, Conn., resumed operations in their weaving and finishing departments on Aug. 4 after the annual two weeks' vacation period.

***Grosvenor-Dale Co.,** No. Grosvenor Dale, Conn., resumed night operations on Aug. 4, after a suspension since Nov. 11. The entire plant has not as yet, however, added a night shift.

Exposition Cotton Mills, Atlanta, Ga., have awarded contract to Sam Hodges, local contractor, for additions and alterations to their buildings.

Elberton (Ga.) Cotton Mills, manufacturers of sheetings, drills and twills, which have been closed down for several weeks, resumed operations last week, operating on a day schedule. The plant, which is equipped with 8,896 spindles and 262 looms, operating on full schedule, employs approximately 150 persons.

Consolidated Textile Corp., Pelham, Ga., have recently installed Breton Minerol Process oil spraying of cotton, purchased from Borne Scrymser Co., New York.

Moultrie (Ga.) Cotton Mills, which are equipped with 11,322 ring spindles and 198 40-in. and 100 36-in. looms, manufacturing sheetings and drills, are operating on a full-time day and night schedule, according to statement of William J. Vereen, vice-president and treasurer.

***Louisville (Ky.) Textiles, Inc.,** recently formed by a merger of the **Louisville Cotton Mills Co.** and **Louisville Textile Co.,** have arranged for an increase in capital from $600,000 to $2,550,000.

Fitchburg (Mass.) Weaving Co., curtailed schedules Aug. 8 to four days a week. About 300 are employed in the manufacture of rayon goods.

Gastonia, N. C. Goldberg Bros. owners of a chain of mills here, including the Clara, Dunn, Armstrong, and Piedmont, and of the American Mills at Bessemer City, have leased the building formerly occupied by the Standard Knitting Co. and are installing machinery for a new plant to be devoted to the manufacture and dyeing of sewing threads. It is expected that the plant will be ready to open in a month or six weeks.

Atherton Mills, Charlotte, N. C., have resumed operations after a shutdown of several weeks. The mill will be operated three days a week for the present. About 100 operatives are employed.

*Indicates previous mention of project.

Cross Cotton Mills Co., Marion, N. C., **Industrial Cotton Mills, Co., Inc.,** Rock Hill, S. C., **Lane Cotton Mills Co.,** New Orleans, La., **Chicopee Mfg. Corp. of Ga.,** Gainesville, Ga., and **Laurens (S. C.) Cotton Mills** are having the bunchless automatic cleaner system installed in their plants by Firth-Smith Co., Boston, Mass.

Kendall Co., with plants at Paw Creek, N. C., Camden, Edgefield and Newberry, S. C., has begun curtailing night operations. Basis of operations now in effect permits employes to stop work at 3:30 a.m. instead of continuing until 6 or 7 a.m.

Somerset Mills, Inc., Roxboro, N. C., manufacturers of jacquard turkish towels, are planning for the enlargement of their plant, according to James M. Craig, president. There is also a possibility of the Philadelphia plant of the company merging with the local plant.

Cutter Mfg. Co., Rock Hill, S. C., has resumed full-time operations after curtailing for several weeks. This full-time schedule will be maintained, it was said, as long as business justifies.

Richland Cotton Mills, Columbia, S. C., have installed a group of 63 electric motors, at a cost of approximately $40,000, which supplants the 750 horsepower steam engine which has been driving the machinery for the last 37 years —ever since the mill was built, according to official announcement.

Watts Mills, Laurens, S. C., and the **Dunean Mills,** Greenville, S. C., which operate under the same management, announce a curtailment of production. Hereafter these plants will operate on a four-day-a-week basis. **Judson Mills,** Greenville, S. C., operates five days a week.

Blacksburg (S. C.) Spinning Co., and **Bowling Green Spinning Co.,** Clover, S. C., were offered for sale, Aug. 5, at public auction, by Carl H. Hart, trustee in bankruptcy for both mills. There were no bidders, and the sale was not consummated. In his advertisements Mr. Hart stated that no bid in either instance for less than $50,000 would be considered. No mill men or prospective purchasers appeared at either sale.

Certified Laboratories, Inc., Marble Falls, Texas. The large mill building was unroofed during a recent severe wind and rain storm, the resulting damage to building and machinery being estimated at $30,000, with no storm insurance carried. The machinery was being installed for the manufacture of gauze products, which was to have begun about Sept. 1. Repairs are under way and the opening of the plant will be delayed only about two weeks.

Carolina Cotton & Woolen Mills, Fieldale, Va., owned by the Marshall Field interests closed down Aug. 8, for a summer vacation. Operations will start again on regular schedule Aug. 18.

Wool

Walworth Bros. Inc., Lawrence, Mass., which shut down recently, sold their machinery at auction Aug. 6 for $8,400. A section of the mill will be occupied by the Merrimac Boiler Works.

White Eagle Woolen Co., Oxford, Mass., recently chartered with a capital of $25,000, is reported planning operation of a local mill. Michael J. Chlapowski, Webster, Mass., is treasurer and representative. Edgar Teger is president.

E. G. Carlton & Sons, Rochdale, Mass., manufacturers of white flannels, shut down on Aug. 9 until September for the annual vacation of employes.

Bigwood Woolen Co.'s (Spencer, Mass.) property, consisting of a mill, its machinery and three tenement houses, assessed for $37,700, was sold at mortgagee's sale on Aug. 4, being bid in by the Mechanics National Bank, Worcester, Mass., holder of the mortgage. The machinery brought $1,000, and the mill and houses a similar sum. It is expected the bank will resell the property and that operations will be resumed shortly. The mill has been idle for several months.

Thorndike Co., West Warren, Mass., on Aug. 4 made a general wage reduction of 10%, affecting 125 employes in the woolen division which is operating full time.

***Ohio Carpet Co.,** West Warren, Mass., which resumed operations on Aug. 4 after being closed for a month, shut down again on Aug. 7 for an indefinite period.

Atlantic Mills, Stottville, N. Y., broadcloth, dress goods and cloakings, are now running near capacity with additional workers.

Knit

***Alabama Hosiery Mills,** Decatur, Ala., are installing additional machinery which should more than double the output and increase the number of employes to 300 during the next year, according to A. G. Patterson, president of the company. The new machinery is being installed gradually and local employes are being trained to operate it. Increased operations of several other Alabama hosiery mills during the next few weeks is foretold by officials of various plants. Mills that are expected to increase their production and which are expected to reach their full capacity by Sept. 1 are **W. B. Davis & Son, Inc.,** at Fort Payne, **Davis & Alcott,** at Gadsden, the **Attalla (Ala.) Hosiery Mills** and the **Tuscaloosa (Ala.) Hosiery Mills.**

Glastonbury (Conn.) Knitting Co. has removed considerable machinery from its mill at Manchester Green,

Conn., to Glastonbury, where the bulk of production will be concentrated in the future. A portion of the Manchester Green mill working force has gone to the Glastonbury plant.

Perkins Hosiery Mills, Columbus, Ga., are running on a three-day week schedule, and expect to hold at that basis for some time to come.

Gotham Silk Hosiery Co., Dover, N. J., is arranging for early increase in working force at local mill, following recent wage reduction affecting about 900 employes.

Mount Holly, N. J.—Plans to raise funds to establish a mill here for the **Deerden Hosiery Mills,** Philadelphia, Pa., recently projected by the local chamber of commerce, have been abandoned for the time being and the proposition will be dropped.

Blood Knitting Co., Amsterdam, N. Y., resumed operations Aug. 11 following a two weeks' shutdown.

Putnam Knitting Co., Cohoes, N. Y., resumed full-time operations this week following the annual two weeks' vacation period.

Valatie Mills (N. Y.) Corp., men's and boys' sweaters and sport coats, increased operations and is now operating at full capacity.

Nebel Knitting Co., Charlotte, N. C., manufacturing full-fashioned hosiery, has resumed day and night operation, after a period of dullness. William Nebel, president, states there has been a rapid increase in orders in the last few weeks.

Hoover Hosiery Co. of Concord, N. C., is installing about $75,000 worth of additional machinery. Paul Weber of Chemitz, Germany, with a crew of German workers, is in Concord, installing and setting up the new machinery. The Hoover company is operating its mill full time, both day and night.

***Mock, Judson, Voehringer, Inc.,** Greensboro, N. C. Additional machinery which is being installed at the plant makes possible a production increase of about 20%, extends the number of employes to 900 and makes the Greensboro investment of the company exceed $1,500,000.

Hollar Hosiery Mills, Hickory, N. C., has let contract to J. R. Killian, local contractor, for erection of a mill building, 142x63 ft., and will install sprinkler system. It is understood the cost will be about $20,000.

Charlotte (N. C.) Knitting Co. resumed operations Aug. 6 after a shutdown of two months, and is expected to have 200 operatives at work within the next two weeks. This announcement was made by Charles L. Okey, manager of the Rock Hill (S. C.) Hosiery Co., which has completed arrangements for leasing the Charlotte concern and will operate the two establishments under Okey's management. The Charlotte Knitting Co. was organized several years ago by Okey, but he has not been connected with the company for the last three years. Located on East Kingston Ave., the plant is valued at approximately $200,000, and is equipped for the manufacture of full-fashioned silk hose. The Rock Hill company is owned by a corporation headed by Joseph S. Lerch and operating in Reading, Pa., under the name of Laurel Hosiery Co. The Rock Hill and Charlotte plants will be operated under one management and finishing for both plants will be done at Charlotte.

Wilson (N. C.) Knitting Mills, Inc., formerly engaged in the manufacture of men's and women's seamless hosiery and boys' ribbed hose, are selling the machinery at the plant and the company is being liquidated.

Claremont (N. C.) Hosiery Mills Co., Inc., manufacturers of women's seamless hosiery and men's fancy half hose, is liquidating, having already disposed of its machinery.

Realart Silk Hosiery Mills, Philadelphia, Pa., are closed down until further notice, and no efforts will be made to resume production at the mill at the present time.

Richland Knitting Mills, Robesonia, Pa., have announced the opening of their new and complete plant.

Coopers Mills Co., Kenosha, Wis., has been formed to operate a local knitting mill. The incorporators are A. T. Spence, Arthur Enright and J. A. Dietrich, all of Kenosha.

*Indicates previous mention of project.

Silk

Morocco Silk Co., Paterson, N. J., is arranging for early removal of plant to Pascoag, R. I., where the property of the Lincoln Mill will be taken over, remodeled and improved for early occupancy.

***Cumberland Silk Mills,** Rockwood, Tenn., have awarded contract for the construction of their plant to J. G. Murphy, of Harriman, Tenn. This is this section's newest industry. The contract calls for the completion of the building within 45 working days and it will require approximately one month for the installation of machinery.

Rayon

***American Glanzstoff Corp.,** Elizabethton, Tenn., second unit is almost completed and will soon be put into operation. This unit cost $10,000,000.

Industrial Rayon Corp., Covington, Va., will expand its housing development, located between the rayon mill and Covington, and in addition to a group of 190 homes now available, about 110 new dwellings will be erected in the future. A dormitory containing 33 sleeping compartments recently built has now been placed in service.

Finishing

Yates Bleachery Co., Flintstone, Ga., is now operating the new mercerizing machine recently installed, which has a daily capacity of between 25,000 and 30,000 yards of cloth. The new unit places the Yates company in a position to finish all types of cotton piece goods, including both fast color and commercial dyeing.

Sturbridge (Mass.) Finishing Co., which had been on a curtailed operating schedule for several weeks went on a five-day weekly basis starting Aug. 11.

Golfast Print Works, Inc., Union City, N. J., recently organized with a capital of 1,000 shares of stock, no par value, to operate a local print and dye works, will be represented by Burke, Sheridan & Hourigan, West New York, N. J., attorneys. The new company is headed by Arthur Grosslight, Arthur Wortman and Ludwig Specht, Weehawken.

William G. Stolz Sons, Inc., Reading, Pa., recently organized with a capital of $75,000, to operate a local dyeing and finishing mill, will be represented by Herbert A. Stolz, 1250 Schuylkill Ave., Reading, treasurer of the company.

***Union Bleachery,** Greenville, S. C., has completed the additions which have been under construction for some time. The company spent approximately $300,000 on this work.

Miscellaneous

Ayer, Mass. International Purchasing Co. is to erect a plant here for the manufacture of rope fiber and allied products, according to an announcement made by the Boston & Maine R.R. Co.

Textile By-Products Corp., Little Falls, N. Y., has completed dismantling of its mill property and it is said that it is now on the market. The firm is now operating in the South.

***American Line Corp.,** Pawtucket, R. I., has started operations with 600 braiding machines in the old Saturday Globe Building, at Utica, N. Y., with 75 employes.

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Textile Patents

BOBBIN, Metal. 1,772,204. Louis Alexandre Cadoret, Pawtucket, R. I.

CIRCULAR-KNIT ribbed fabric. 1,772,400. Walter Larkin, Norristown, Pa. Assigned to Fidelity Machine Co., Wilmington, Del.

COTTON baling. 1,772,164. John A. Taft, Corpus Christi, Tex. Assigned to P. M. Clark, Dallas, Tex.

FALSE twist to textile rovings, Means for imparting a. 1,772,109. Georg Kurt Quaas, Chemnitz, Germany. Assigned to Sachsische Maschinenfabrik Vorm. Rich. Hartmann Aktiengesellschaft, Chemnitz, Germany.

FLYER twisting frame. 1,772,303. Frank Bauman, Honesdale, Pa.

KNIT fabric and method of making the same. 1,772,230. Fred Webster Smith, Montclair, N. J. Assigned to Scott & Williams, Inc., N. Y.

LIQUID treatment of textile fabrics, Apparatus for the. 1,772,108. Thomas Parkinson, Pendleton, Manchester, England.

LOOM. 1,772,080. Arthur J. Harris, Paterson, N. J.

LOOMS for weaving, Stop motion for. 1,772,430. Thomas Pilling, Stalybridge, England.

MOTION-control means for the spindles of textile spinning machines. 1,772,315. Maurice W. Kanter, Thomas L. Clark and Walter B. Wilson, Port Allegany, Pa.

SHUTTLE eye. 1,772,012. Daniel O'Hara, Philadelphia, Pa. Assigned to U. S. Bobbin & Shuttle Co., Providence, R. I.

THREAD or yarn guide. 1,772,236. Friedrich Alz, Philadelphia, Pa.

Questions and Answers

We undertake to answer, free of charge, to the best of our ability, questions pertaining to textile matters received from any regular subscriber to TEXTILE WORLD. We do not undertake, however, routine analysis of yarn or fabric, or investigation involving unusual expense.

Inquiries should give the fullest information and data possible. In the case of damage to material, a sample should be sent. All inquiries must be accompanied by the name of the person inquiring, not for publication, but as evidence of good faith. The identity of those seeking information on technical subjects will not be disclosed.

Letters expressing opinions or voicing criticism are cordially invited. These will be signed by the correspondent's name unless the letter itself contains a request that the name be withheld.—EDITOR.

Percentage of Silk in Twisting

Technical Editor:

When throwing combinations of rayon and Japan silk, is there any formula used in computing the percentage of Japan silk needed for 1 lb. of a combination twist? What percentage of Japan silk would be needed in twisting of one end of 100-denier rayon and two or three ends of Japan 13/15? *(7213)*

Either of the following methods can be used for calculating the proportion of Japan raw silk required in a combination thread. One is based on the yardage, and the other on the size. The first is given to prove the second.

1-denier silk has	4,464,528 yd. per lb.	
100-denier thread has	$\frac{4,464,528}{100}$, or 44,645 yd. per lb	
2 threads of 13/15 (2x14) have	$\frac{4,464,528}{28}$, or 159,447 yd. per lb	
1 yd. of 100-denier weighs	$\frac{1}{44,645}$ = 0.00002240 lb.	= 78.1%
1 yd. of 28-denier weighs	$\frac{1}{159,447}$ = 0.00000627 lb.	= 21.9%
Total =	0.00002867 lb.	= 100.0%

As the size or denier of both threads is based on the same length, the amount of each material required is in proportion to the size, thus:

1 end 100 denier	=	100 denier	= 78.1%
2 ends 13/15 denier	=	28 denier	= 21.9%
Total	=	128 denier	= 100.0%

In actual practice the raw silk seems slightly coarser, so that 20% raw silk and 80% rayon will probably be nearer the actual amount of each used.

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Silk for Grenadine and Crepe Hosiery

Technical Editor:

Will you please be good enough to furnish me with the following information: When buying raw silk for making grenadine or crepe hosiery, what quality of raw silk must be purchased? This applies to making two- to four-thread hosiery. Please let me know the difference in evenness, neatness, cleanness, lousiness, nature, cohesion, strength, tenacity, elongation, etc., between grenadine or crepe yarn and tram yarn. *(7249)*

For two- and three-thread grenadine hosiery special reeled silk is required. For four-thread Grand XX special, the rating by seriplane or serigraph is as follows:

Thread	*Evenness*	*Cleanness*	*Neatness*	*Nature*	*Strength*	*Cohesion*
2 and 3	95%+	95%+	85%+	Hard or very hard	Over 3.50 grams per denier	Average or above
	90%+	95%+	85%+	Hard or very hard	Over 3.50 grams per denier	Average or above

◆

Elastic Webbing Industry

Technical Editor:

At the present time I am engaged in a study of the elastic webbing market. By this, I mean strip elastic used in women's bloomers, garter elastic, wide elastic webbing for corsets, as well as strip elastic for shoes and corset laces. This is an entirely new subject with me and I know little or nothing about this industry, and would appreciate any data and information which you may have on this subject. I am in hopes that you may have more or less of a standard analysis of this market which may answer some of the specific questions which I am listing below.

1. What is the potential market?

2. How do the manufacturers sell?

3. If a portion of their merchandise is sold to manufacturers to complete a unit, what portion of their business is conducted by this method and what portion by other methods? Please state what other methods are.

4. What, in general, does the future hold for elastic webbing sales?

5. What are the usual discounts allowed by the manufacturer in the various classes of sales outlets.

6. What are the price ranges of the various products manufactured by the various companies?

7. What in your mind is the consumer attitude towards the corset?

8. Do any of these manufacturers offer any resale assistance—advertising, display, etc., etc.?

9. In your estimation, is there any one or more of the manufacturers doing a substantial advertising job? *(7282)*

1. The potential market of this industry is the whole world. Japan, China, Brazil, the Argentine, and Australia have, in the past, been prominent as importers of elastic products, but in recent years the foreign market seems to have fallen off. Part of this drop is due to the installation of narrow-fabric machinery in these countries. This is particularly true of China and Japan.

2. Some of the manufacturers sell direct; some through an agent on commission. No consignment work is done, and, to the knowledge of the writer, no factoring.

3. It would be safe to say that fully 95% of the products of elastic manufacturers are sold to complete a unit, as the material as it comes from the loom or braider is not in available form for immediate use. The remaining 5% is sold in bulk and peddled out in small lots by the retailer.

4. The future ought to hold much in store for elastic commodities, not only for domestic consumption, but also

for foreign consumption. The engineers of this trade are continually experimenting and new users are bound to be developed.

5. In some lines of goods the manufacturers' discounts are 2% 10 days, net 30 days. Other lines, especially those that are disposed of through agents or supply houses, are subject to discounts as high as 50%, sometimes higher.

6. To enumerate the different products and attempt to give the price range of each, even if they were classified and the information were available, would take a great deal of time and space. Narrow garter elastic often sells for a fraction of a cent per yard—fancy elastic goring may run as high as $4.00 to $5.00 per yard.

7. The consumer attitude for some time has been away from the corset, but at present the tide seems to be turning. The long, slender waist line that is now the mode must be held within the proper confines.

8. Three, at least, of the largest manufacturing combines do assist the merchant dealer by large display advertising, mainly in the leading national magazines, but sometimes in the newspapers of the larger cities. Such advertising, however, usually concerns some special article that is being boomed (e.g., the recent suspender campaign) and constitutes a very small percentage of the business as a whole.

9. On the whole, there is not a great deal of advertising done by the manufacturer.

◆

Worsted Fabric Varies in Width

Technical Editor:

I should very much appreciate some information in regard to a difficulty I have had with a piece of finished cloth containing 1/18 worsted filling and 2/36 worsted warp, both mixes. When the cloth was all finished, the first 20 yd. was 60 in. wide, and the next 20 yd. was 59 in. wide. Would you please tell me why it should fall away 1 in.? (7266)

If the piece had the same treatment throughout finishing, there was undoubtedly some variation in the twist of the yarn used, or else stock was taken from two different batches prepared by the same spinner. Should the piece, for some unknown reason, have been stopped while in the course of drying, the end which is 60 in. wide received the stretch, in all probability, while quite moist; and the part which is 59 in. wide may have been on the first section of the dryer and dried before the piece reached the maximum width. To prove this, wet out the piece thoroughly and redry at the width wanted, making sure that the piece is not stopped while drying. A variation of this description may be caused by moisture while the piece is being steamed or dewed before pressing, if part of the piece has been subject to an overdose of steam or water while in the dry state.

◆

Knitting Fancy Material

Technical Editor:

I am herewith enclosing two cuttings of knitted fabric. I would like to know on what machine it has been knitted and the process of knitting it. (7255)

Both of these pieces are made with the same construction. They can be made on a two-bed flat machine equipped with an extra-deep front bed to permit the use of needles having shanks of different lengths. The needles of the front bed would be arranged with one short shank and one long shank in a repeat. There must be two sets of cams, one for each shank length. The back bed may have needles of one length. The cams for each bed should be such as to permit tucking or cessation of knitting, as required.

The pattern is obtained as follows: First course—half cardigan; tuck on back bed. Second course—half cardigan; tuck on front bed. Third course—tuck on one set of front needles; do not knit on other. Fourth course—rib (both beds blue). The next four courses are a repeat of the first four, except that tucking comes on the other set of needles and the first set of front needles does not knit.

The second sample is like the first except that brown comes every fourth course and green every first course.

These can also be made on a flat jacquard machine. We believe certain circular machines can also be used to produce these goods. It would be necessary to have the cylinder equipped with needles of short and long shanks.

THOUSANDS of inquiries are handled annually by the Technical Editors. In order that as many readers as possible may benefit from this service, we select problems of general interest for publication each week.

◆

Preventing Curl in Cotton Knit Goods

Technical Editor:

We understand that cotton jersey cloth has the edges pasted to prevent curling. We have heard that it is done on pipes during the drying operation, one side being pasted and afterwards split. Can you furnish us with any information as to how this is done? (7257)

Manufacturers who make a coated knit fabric demand a smooth, flat fabric without curl or folded edges. These goods are always knit with a needle out, which serves as a guide in pasting the edges and in cutting the goods. The goods must be boiled out and fairly free from waxes, otherwise the paste will not stick evenly. If the goods are colored, the boiling before and during the dyeing serves to make the goods absorbent. If the goods are sold in their natural color, they must be boiled out with soda ash and sulfonated oil.

The paste is made of thin-boiling starch or a regular pearl starch. If the latter is used, a product like Feculose, which has the property of making starch solutions the same consistency when hot or cold, must be used. The usual formula for thin-boiling starch is 14 lb. to 50 gal. of water. If a thick-boiling starch is employed, use 14 lb. of starch and 7 lb. of Feculose. The starch (or starch and Feculose) is added to cold water in a tank, preferably a steam-jacketed tank with paddle

agitators. It is stirred fifteen minutes. The steam is then turned on, and the starch and Feculose are brought up to a boil. The boil is continued for one hour. The sizing preparation is then ready to use.

There are three methods of applying the paste, depending on the production that must be turned out per day. If the production amounts to five or six rolls a day, the following method is used, and the man in charge of the dryer can do it all: The goods are rolled up on a paper shell on the dryer pipes with enough heat and speed to nearly dry the goods. They are guided so that the needle-out mark is on one side of the roll. The goods are removed from the dryer, and the end of the paper shell is trimmed off flush with the roll. The roll is then placed in a pan, such as a refrigerator drip pan. Into the pan is poured enough of the paste to make a level of 1½ in. The roll is left in this pan fifteen or twenty minutes to give the size an opportunity to soak into the goods. The roll is then lifted out of the pan, and the excess paste allowed to drip back into the pan. The fabric is then dried. This method will provide a size of about an inch in width on each side of the needle guide.

The roll is split by placing a rod through the paper shell and hanging the rod on a rack. A pair of 9-in. shears (very sharp) is fitted with a spindle bobbin on the under blade. The operator stands before the roll, holds the shears firmly in one hand, and pulls the cloth towards the shears; in this way the goods are split. They are then folded flat or rolled on a paper shell.

Where the production amounts to 15 or 20 rolls per day, another method is used. The goods are extracted as dry as possible and are then drawn over a board 9 in. x 12 ft., which is fastened to a bracket so that it resembles an ironing board of the wall-bracket type. As the cloth is drawn over this board, the operator stands at the free end with a stiff brush, 1½ x 6 in. The brush is first wet out in the starch paste and then daubed onto the needle guide, care being taken to have it hit on each side of the guide equally. One dip in the starch paste will size about 27 in. of the fabric. The goods are then dried thoroughly. Where the production is as large as this, the goods are generally split on a splitting machine, which has a revolving knife blade that is guided against the needle-out mark. These machines plait the goods into a pile and pull the cloth against the knife blade. The operator guides the cloth.

Larger amounts than specified above are handled by pulling the damp goods onto the large ironing board used in the second method. A diamond-shaped board is then fixed into the free end of the board. This is made diamond shaped to draw the fabric out to nearly its full width. Two metal wheels with rough surfaces 7 in. in diameter and spaced 2 in. apart are fastened to the free end of the diamond-shaped board. Another set of wheels the same size and spaced the same, but driven from a motor by means of a sprocket chain, catch the cloth between the nip of these four wheels and pull the cloth off the board. The size is suspended in a tank above the machine and is fed through a flexible tube to a brush. This brush is 2x6 in. The center of the brush is hollowed out; that is to say, there are bristles all around the sides but none in the center. The paste flows into this central cavity. The flow of the size and the speed of the driving wheel are such as to deliver the size as fast as the cloth runs through the machine. The sized goods are dried and split in the same way as the second method.

We have seen one operator, after he had become proficient on a machine of this type, size 56 rolls in a 10-hour day. He made up his own size.

Regardless of the production or the method used, make up fresh size each day, or twice a day.

◆

Filling Slips When Crepe-de-Chine Is Cut

Technical Editor:

Enclosed find a sample of crepe-de-chine which we are using in our corset factory. This fabric possesses a characteristic which is very undesirable, in that the filling threads are easily pulled away from the warp threads. We ourselves are not sufficiently expert on the weaving end to state authoritatively what causes this trouble, but a local silk house from whom we purchase goods claims that this is caused by having spun silk and tram silk woven together. The manufacturer of this cloth definitely states that this is not the case. Would you kindly let us have an authoritative opinion on this matter at your very earliest convenience? (7244)

The sample submitted is made with a 20/22 raw warp, 360 ends per inch, and with 80 picks of filling, three-thread, 13/15, 60/65 turns. This cloth is not properly constructed for pure dye, which causes the slippage. The cloth is adapted for weighting. If you would put in 80 to 84 picks, four-thread, you would obtain a more satisfactory cloth, although at a trifle higher cost.

◆

Infants' Knitted Goods

Technical Editor:

We are enclosing a sample of fabric, and would appreciate it if you would advise what kind of machine is used to make this material. (7254)

This tube was knitted on a four-feed circular plain machine. It is here shown with what is ordinarily the back on the outside.

There are two types of machines which can do this work. One of these is the trick-wheel type, and the other is the type with two sets of needles, having different shank lengths.

The pattern here used was knitted as follows: first feed—gold, even-numbered needles knitting; second feed—black, odd-numbered needles knitting; third feed—black, even-numbered needles knitting; fourth feed—black, odd-numbered needles knitting. When not knitting, the needles are tucking.

On the trick-wheel machines, a circular notched wheel takes the place of the raising cam and lifts the needles to cast off the loop before knitting. When a notch is cut in the wheel, the needle is not lifted, and as a result the needle does not cast off its loop. It is still high enough to catch new yarn and so, when depressed by the stitch cam, draws a tuck stitch.

The other type of machine has two sets of needles with butts at different levels. Thus, if set up with every other needle in the upper group, the cams at the first and third feeds cause the short needles to knit and the long needles to tuck. At feeds two and four, the long needles knit and the short ones tuck.

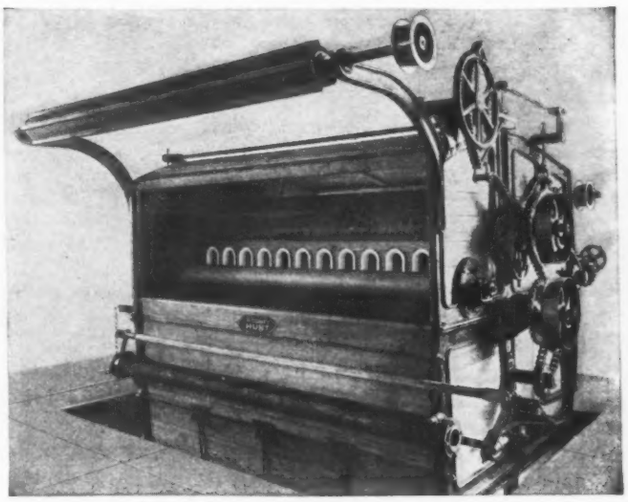
The circular spring-needle machine can make this work, but this tube is not large enough for a four-feed machine of this type.

New Machinery & Processes

"Clipper" Cloth Washer

NUMEROUS changes and improvements are embodied in the 1930 Model "Clipper" cloth washer introduced recently by Rodney Hunt Machine Co., Orange, Mass. Among the innovations designed to give faster scouring and quicker and more thorough rinsing are included a sheet-spray device which throws an unbroken sheet of water on the goods; and a non-leaking suds box of the water-tight, inclined type with two-way discharge valve at the lower end. This latter device carries all the soap back into the tub while washing, and all the dirty water to the sewer while rinsing, thereby preventing pollution of water in the tub and reducing the time and water required. In addition, a new type of drain insures the proper amount of clean rinse water in the tub at all times.

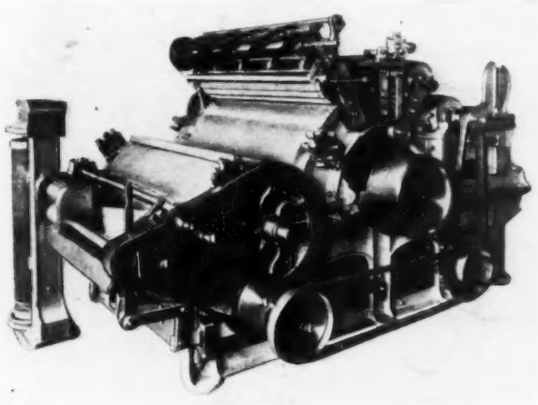
Another improvement is the duplex take-over attachment, designed to give a simple and effective method of threading the goods through the washer in a continuous spiral rope. This attachment is said to accomplish a more positive change of folds and thus eliminate chance of wrinkles, and at the same time give a more efficient squeeze and shorten the time required in soap. Other features of the new washer are special attachments which allow quick and accurate adjustment of spring pressure and nip opening, and thus facilitate changing from one fabric to another. To enable power savings and lessen the danger of oil stains on the goods, antifriction bearings have been provided.



"Clipper" cloth washer

Simplified Cotton Card

INVESTIGATIONS undertaken by the British Cotton Industry Research Association, at Shirley Institute, indicated that the number of working flats to insure efficient carding could be substantially reduced. As a result of these researches Platt Brothers & Co., Ltd., Oldham, England, represented in this country by Leigh & Butler, 222 Summer St., Boston, has developed a new cotton card embodying this principle. The "Shirley" card differs from older models in that instead of the 106 flats ordinarily employed, only 48 are used in the simplified machine. Furthermore, the number of $1\frac{3}{8}$-in. flats on the flexible bend has been reduced from 39 to 40 to 13 to 14.



Simplified cotton card

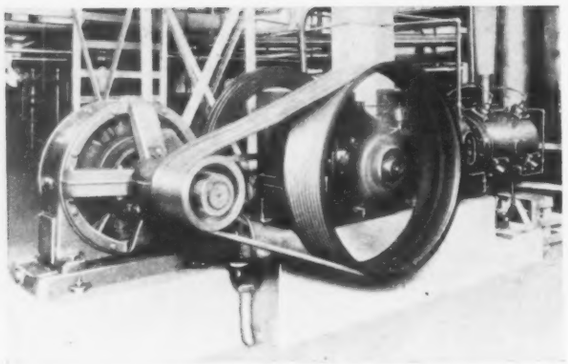
Another radical change in design is the position of the licker-in, which is placed well above the main-cylinder horizontal center line. This arrangement reduces the width of the back sheet, permitting it to be adjusted readily and accurately in relation to the cylinder wire. It is pointed out, also, that raising the licker-in has allowed its upper supports to be bolted to the cylinder bends, thus adding to the rigidity of the card.

Aside from these major improvements in design, a number of other innovations have been embodied in the "Shirley" card. The flats stripping sheet, for example, has been strengthened to allow accurate setting; in the cylinder undercasings, hinges have been eliminated and an additional setting bracket added; and provision has been made both for carrying an extra lap and also for easier removal of licker-in waste. Overall dimensions of the new machine are 10 ft. 5 in. x 5 ft. 8 in., giving in comparison with the standard card, a saving in floor space of approximately 6 sq.ft. Greater accessibility to the working parts is also afforded, since the height to the top of the flat chain is only 4 ft. 7 in., as compared with 5 ft. 9 in. in older models.

The card has been subjected to a number of tests under working conditions at Shirley Institute; and it is reported that both as regards production and quality of work in the case of either cotton or staple fiber it is equal to the standard card.

Multi-V-Drive

WORTHINGTON Pump & Machinery Corp., Harrison, N. J., has placed on the market a new means of power transmission known as the Multi-V-Drive. The drive, which was developed with the cooperation of Goodyear Tire and Rubber Co., consists of a number of endless, molded V-belts running in V-grooved sheaves.



Multi-V-Drive applied to air compressor

It is stated that this combination gives a positive grip, without binding or backlash, which transmits about 99% of the applied power at high speed ratios, over short centers, without idlers. Among the other advantages claimed for the Multi-V-Drive are long life, low maintenance costs, quiet operation, small floor space required, constant speed, freedom from breakdowns, and elimination of lubrication and belt dressings. The drive, furthermore, is said to be unaffected by dust or moisture.

Goodyear Emerald Cord felts used in the drive are designed to combine in correct ratio high power capacity, long flexing life, low stretch, and accurate cross section. The load-carrying members are high-grade cotton cords arranged in parallel lines and concentrated about the neutral axis. The rubber is of high quality; and each belt takes an equal share of the transmitted load.

Each sheave is carefully grooved, machined, and finished, so that the grooves present a smooth surface on which the belts run. Wedging action between the belts and grooves is said to result in a slipless, powerful grip, which compensates for—but differs from—initial belt tension in a flat-belt drive.

According to the manufacturer this smooth-grooved construction, together with the fact that there is an exact mathematical relationship between the grooves and the molded shape of the V-belts, results in an effective conformity of belt to sheave, thus assuring maximum power-transmission efficiency. To eliminate the possibility of sudden breakdowns, each application is so engineered that, should one of the belts be ruptured, the remaining belts will carry the load until replacement is made. Multi-V-Drives can be applied to equipment already installed, incorporated in new installations, or built into new machinery.

Sheet Cutter

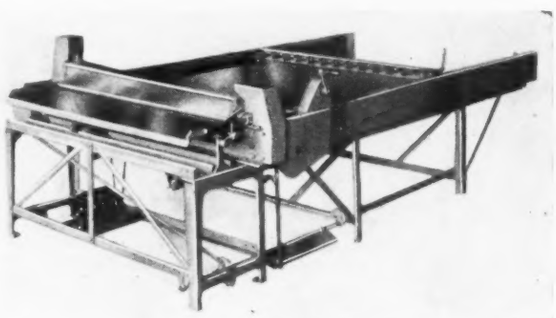
CUTTING of textiles either straight or on a bias is facilitated with the Type S-A sheet cutter placed on the market recently by Alfa Machine Co., 405 Fourth St., Milwaukee, Wis. This machine is a combination of a motor-driven shears and a hand- or motor-operated feed carriage having a parallel movement which draws the material forward. The feed carriage is equipped with a series of flat fingers that firmly grip the material—without the use of hooks or pins—carrying it forward to the desired length, and permitting inspection before cutting. A stop, which is quickly adjustable for varying the length of cut, regulates the travel of the feed carriage.

The material is cut in uniform length, released from the carriage clamp, and deposited in a pile on a table below the machine. Carriage and drive are both equipped with ball bearings. Standard sizes of the machine are made for cutting fabrics 30, 42, and 54 in. wide, respectively; larger sizes can be furnished if desired.

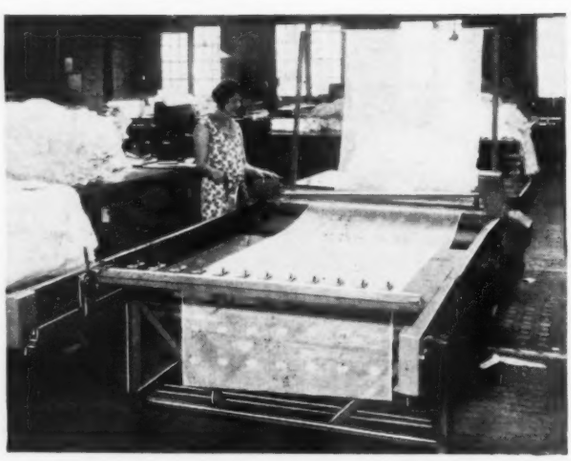
Extended-Surface Economizer

COMBUSTION Engineering Corp., 200 Madison Ave., New York, has placed on the market recently a fin-tube-type, extended-surface economizer. It is stated that this economizer can be installed in considerably less than half the space required for a straight, plain-tube economizer of equivalent heating surface. The principal features are external return bends; internal return bends; tube arrangement; and use of finned tubes, which provide additional heat-absorbing surface.

The heat-absorbing elements are constructed by connecting a U-band to two straight tubes, and so forming a U-tube. The open ends of each U-tube are connected serially by return bends, located outside the end-plates, to the tubes directly above and below. Adjacent vertical tube sections are arranged so that the open ends of the U-tubes alternately enter one end and the other of the economizer casing. Water circulation is separted into two circuits, one running through the U-tubes connected by the return bends at one end of the economizer, and the other through the U-tubes connected by return bends at the opposite end. What is said to be a distinct advantage of the two separate water circuits is the fact that the water flows through only one-half the tube distance as compared with the plain-tube, single-circuit type of economizer. With extended surface in the form of fins, the tube length is still further reduced, resulting in a

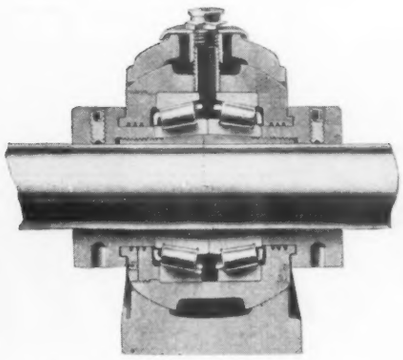


Sheet cutter



Cutting lace curtains with sheet cutter

Ball-and-socket pillow block



Cross section of ball-and-socket pillow block

Motor starting switch

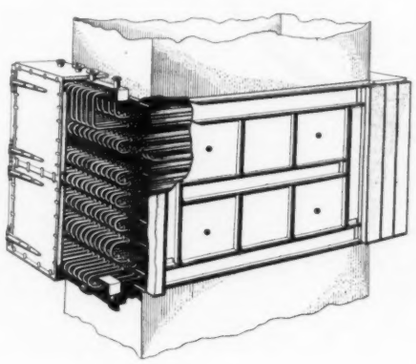
marked decrease in frictional resistance and water-pressure drop. Both circuits are served by common inlet and outlet headers.

Compactness is derived principally from the fin-tube design, which reduces the tube-length per square foot of heating surface; and the return bend arrangement, which permits the tubes to be nested closely together. The end plates are designed to permit their being quickly and easily removed for the inspecting and cleaning of the tubes.

Ball-and-Socket Pillow Blocks

TIMKEN anti-friction, ball-and-socket pillow blocks have been announced recently by Link-Belt Co., 910 South Michigan Ave., Chicago. These pillow blocks are designed to fit any good grade of commercial shafting, from $1\frac{7}{16}$ in. in diameter to the largest size, without special fittings or the use of appliances. Designed several years ago, these pillow blocks have been tested under actual service conditions in a wide range of applications, and are now being offered to the trade.

The pillow blocks are pressure lubricated, the grease being forced in at the center and out at the shaft openings. This method of lubrication, together with the addition of a grease seal at the top of the pillow block, is said to make the device practically dust tight, keeping dust and grit out of the bearing, and retaining the grease inside the bearing. Other features of the pillow blocks include machined ball-and-socket surfaces; tapered sleeves fitting into tapered bearing bores; and concentric contact, holding the shaft true with the pillow block, and transferring the shaft load directly to the bearings without bending action on the sleeves. In addition, although set screws are not needed under ordinary conditions, they are provided to give added security in holding the mounting in cases of extreme vibration.



Extended surface economizer

Starting Switch for Small Motors

FOR starting and stopping of small d-c. and polyphase motors, Cutler-Hammer, Inc., 207 Twelfth St., Milwaukee, Wis., offers a new two-pole, push-button-operated starting switch with thermal-overload relays. This new starting switch can be used with d.-c. motors up to $\frac{1}{2}$ hp., 115 volts; and $\frac{1}{4}$ hp., 230 volts; or with a.-c. motors—single-, two-, or three-phase up to 2 hp., 110 to 550 volts.

Small in size, the starting switch can be mounted on the machine at the operator's finger tips. For machinery builders, an open-type switch for building directly into the machine is offered.

Double-break, silver contacts and a quick-break contact mechanism are said to assure long life and continuous current-carrying capacity. Thermal overload relays allow working the motor to the limit, yet disconnect it as soon as an overload becomes dangerous to the motor. When tripped by an overload, simply pushing the "reset" button resets the relay and starts the motor. The enclosed switch has conduit knockout holes in the top and bottom for easy wiring. Arrangements are provided for sealing the cover if desired.

Welding Electrodes

TWO new welding electrodes have been announced recently by the Lincoln Electric Co., Cleveland, Ohio. One of the electrodes, Stainweld A, is suitable for welding stainless steels. This rod is of the same chemical composition as the stainless steel itself and is coated with a material which in the intense heat of welding forms a gaseous envelope around the arc. Use of Stainweld A is said to result in a dense ductile weld as impervious to corrosion as the metal it joins. The other electrode, known as Lightweld, is designed for use on light-gage material. It can be employed on 16, 18, 20, or 22-gage metal in making lap, butt, or corner welds, giving a dense weld free from pin holes. This rod is designed for use with a manual carbon arc and is suitable for use in connection with horizontal, vertical, or overhead work.

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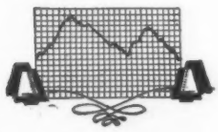

Further Weak Spells Likely for Raw Silk

Bottom Probably Passed and Stability More Necessary than Advance, Says Dr. Haney

OBVIOUSLY the readjustment in the silk industry, while it is under way, has not as yet made any great progress. Production is now being curtailed, and the large supplies in storage are being held for the purpose of insuring against hasty liquidation. But production of silk textiles is also being curtailed so that the smaller additions to the world supply still exceed mill consumption, and stocks have increased. Therefore, while we still hope that the bottom of the silk market has been seen, and that August may mark a turn for the better, we continue of the opinion that the process will not be speedy.

A period of irregularity and low levels seems to be both desirable and probable. It must be remembered that silk textile values are badly disrupted by severe price cutting. The whole price structure must become stabilized around the lower levels now in force before conditions in the industry will become sound. Greater stability in silk prices seems to be more important than higher prices.

Favorable Factors

Tending to support the silk market, are the following factors:

1. Raw silk is cheap.
2. Steps being taken in Japan to enforce curtailment of production; some filatures have closed down.
3. The into-sight movement is lower, and considerably under a year ago.
4. It is reported that several thousand bales are sealed in cans for long-term storage.
5. Signs of a little seasonal gain in spot trading.
6. Some improvement reported in the call for silks, especially cantons and velvets.
7. European markets stable and a trifle firmer.

SUMMARY

There are grounds for hope, but no actual turn for the better in the silk situation. Further weak spells are to be expected during a period of irregularity and stabilization.

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The analysis and forecast by Dr. Lewis H. Haney, Director, New York University, Business Research Bureau, which regularly appears on this page, considers various branches of the textile industry from week to week. The conclusions reached in the Analyst are mostly forecasts and generally apply to a time two or three months ahead. The Analyst is based on statistical data and does not reflect temporary trade sentiment.

8. Canton market stronger.
9. Recent steadiness in the face of the bearish position suggests that the situation is well discounted; possibly the heavy July volume in the Japanese markets may indicate completion of the most necessitous liquidation; some indications of relatively greater strength in the more distant future.

Unfavorable Factors

The following factors are tending to depress the market:

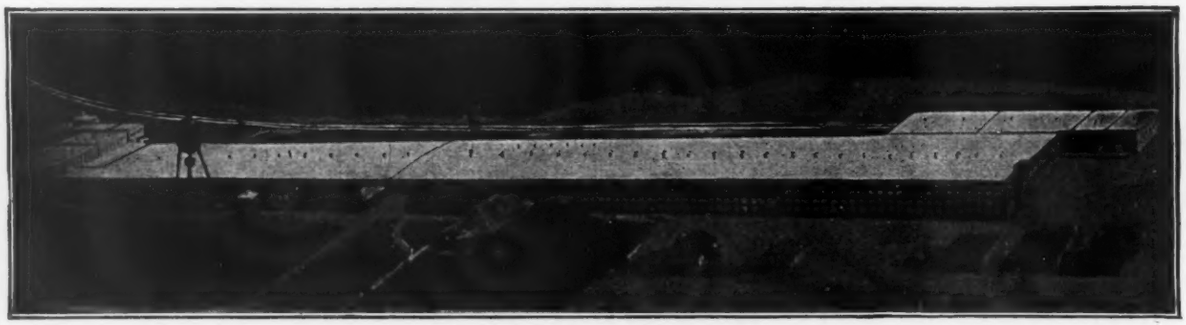
1. World silk production continues in excess of consumption.
2. The large increase in the visible supply; stocks both in Japan and at New York increasing.
3. A weak credit situation tends to force some further Japanese liquidation.
4. United States imports high in comparison with deliveries, with New York stocks larger.
5. The domestic trade appears to be well supplied.
6. Buyers continue hesitant and there are practically no forward orders; insistence on reductions from the low spring prices causes friction.
7. Some liquidation of inventories of spring goods still required; severe competition and some price cutting in fall lines reported.
8. Hosiery business continues very dull.
9. Lower rayon and cotton prices.

Statistical Position

The outstanding point in the Silk Association's July figures is the large increase and high level shown by imports. At 47,063 bales the imports were over two times as large as in June and were above a year ago. They were 117.8 per cent of the estimated deliveries for the month, which is unusual. Moreover, the quantity in transit increased sharply and was very large, suggesting further gains in imports.

Naturally stocks at New York increased. With business in its present depressed condition, such imports could hardly mean anything else. At 35,565 bales, the stocks were about 16 per cent under a year ago and the smallest for the period in several years; but they are none too small in comparison with the current deliveries. Furthermore, the increase in stocks at New York is not entirely seasonable. Except for 1921, 1922, and 1927, stocks have decreased during the month of July in recent years.

Estimated deliveries also increased. This was partly seasonal. A gain is usual between June and July. There is, however, a suspicion in the trade, that the increase last month partly represents deliveries on forward orders placed some time ago, rather than buying for current needs. Certainly it does not correspond to any increase in con-



Spinning Mill, Lincolnton, N. C.

GRENADINE HOSIERY
OR
FINE LISLE HOSIERY

To keep ahead, is to keep up with the style.

To supply the demands of this latest vogue, we are making a very fine Combed Sea Island Gassed yarn—fine as to quality and count, in various twists.

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5/2 to 120/2 C. P. 50/2 to 160/2 C. S. I.

Ring & Mule Spinning

NATURAL—MERCERIZED—GASSED—BLEACHED—COLORS

BOGER & CRAWFORD

"From the Cotton Field Direct to You"

J and E. Venango Sts.
PHILADELPHIA, PA.

sumption, and is thus of doubtful importance as a bullish factor.

The bearing of these changes is not entirely clear, but the net result seems to be somewhat unfavorable. The large imports suggest Japanese liquidation, and show that there is no danger of a "squeeze." They tend to shift the surplus to this market. The increase in New York stocks makes them ample for current requirements. Probably the increase in estimated deliveries means an increase in the invisible supply at mills or elsewhere.

No turn has been seen in Japanese stocks. The total for Yokohama and Kobe is 148,000 bales, which represents a good-size increase. The combined New York and Yokohama stocks increased about 21,000 bales and equal over 143,000 bales. We find that the average of such stocks for the last three months, allowing for seasonal variation, is 163 per cent in excess of average, while domestic machinery activity (and therefore mill consumption) has been below average. It can be said that the increase in stocks last month was partly seasonal and that it was less rapid than in any month since February. This suggests some grounds for hope, but it shows no actual turn for the better.

The huge world visible has now increased to 214,765 bales. This reflects a continuation of unbalanced supply and demand. According to the Raw Silk Exchange, the July world production was still abnormally high in comparison with world consumption. Production was below a year ago, but the decline in consumption was still greater.

Price Trend

During July, silk prices fell, rose, and fell again. The net loss in Cracks XX was about 28c. The Saiyu grade lost about 100 yen, falling to the 700 yen level. The rise in mid-July came as near to being a "squeeze" as the market is going to see. Probably the market will now settle down and complete the job of liquidation. The July average for Cracks XX was about $2.99, against $3.41 in June and $5.02 a year ago. This is a 40% decline in the monthly average in twelve months.

The bear will say that the mid-July rise has been largely seasonal. Also that it was partly due to a rebound from a panic low point. Certainly it has been followed by a considerable reaction. On the other hand, the bull will maintain that silk markets are now benefitting by an upward seasonal trend, and that prices are very low both in comparison with the past and with other fibers. He will argue that the situation is known and discounted. He will point to the curtailment in production as tending to make for a stronger situation in the future.

It is difficult to balance these arguments, and at present our barometers are of little assistance. Wholesale sales of silk textiles underwent a sharp reduction in June, being less than 50% of the figure for June, 1929. It is more than can be explained by the decline in prices, and indicates a reduced yardage. In fact, the Silk Association's reports show a decline of 28.7% in quantity. Meanwhile silk spindle activity is down and even so remains high in comparison with the sales.

We venture to draw the following conclusions:

1. Probably the raw silk market has seen bottom.
2. The market is not yet ready for a sustained recovery.
3. Further weak spells are likely during the liquidation of Japanese raw silk stocks.
4. During the next few weeks, there is likely to be irregularity within a trading range running around $3.

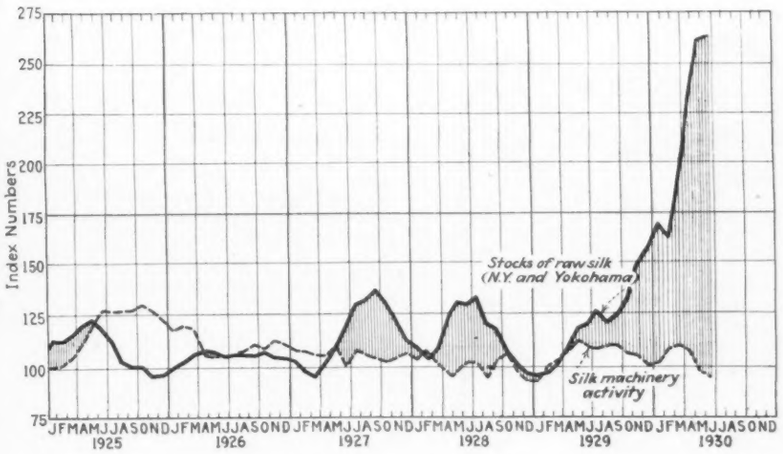


Fig. 1. RAW SILK STOCKS AND MACHINERY ACTIVITY. Stocks—N. Y. and Yokohama, adjusted for seasonal variation, three-month moving average; N. Y. Stocks, Silk Association; Yokohama Stocks, H. L. Gwalter & Co. Machinery Activity—Composite of spindles and looms adjusted for seasonal variation, Silk Association. Average 1923-1927 = 100 for both indexes.

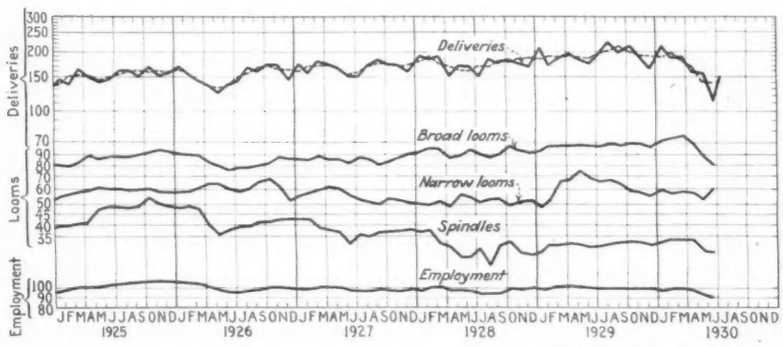


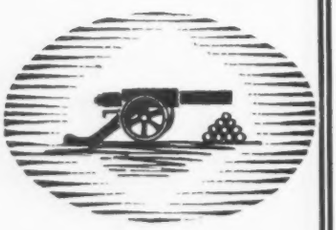
Fig. 2. INDEXES OF ACTIVITY IN SILK MANUFACTURING—Deliveries (heavy line). Bales 1921 = 100 (Silk Association). Monthly figures, dotted line; three-months' moving average, solid line. Broad looms, narrow looms, spindles, per cent active to total (Silk Association). Employment, number employed. Average 1923 = 100 (U. S. Bureau of Labor Statistics). All indexes in Fig. 2 are plotted on a logarithmic scale.

The Textile Trend

Cotton Textile Markets: Bids were numerous the early part of the week, but sales were few. Customers were evidently putting out feelers to sound the market. Gray goods prices are somewhat uncertain, but no general weakness is apparent. Most centers quote unchanged figures; some stating that they are firm, while others admit that they would trade on bids for good-size lots. Converters have stated that they will maintain their 14½c. price on percales and not meet the 14¼c. figure named by a large wholesaler.

Wool Textile Markets

Outside of some activity in flannels, tropical worsteds and certain types of sport cloths materials, the men's suiting branch is still sluggish. Fall buying remains very backward. Demand was considerably better in women's wear, and cutters were showing much of interest in a variety of coatings. Rayon-



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Rayofleece

...Fast to light and washing

These yarns are ideal for putting across fast-moving numbers in hosiery, bathing suits, sweaters, jersey cloth, pastels for underwear, etc.

You have 125 colors to choose from in either solids or combinations. The quality is typically Cannon and these yarns are exclusive with Cannon—the product of our Amazon Mills—8s to 30s—singles and plies—cones, tubes and skeins.

Amamerino and Raymerino are companion products containing 5 to 50% wool. They too offer the "makings" of a distinctive knit product.

Write for samples.

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Sales Agents for
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Mercerized Yarns and Thrown Silk
AMERICAN ENKA RAYON
IMPORTED DUTCH ENKA RAYON
for the Southern States

CANNON YARNS

worsted combinations were important in dress goods lines. The main complaint is that buying is confined to a few houses and the general run of the mills are not experiencing any improved volume.

Knit Goods Markets

There is a stronger undertone in all knit goods markets, but actual buying does not show much improvement. In the outerwear field, heavyweight sweaters sell more steadily. The cool spell this week is expected to help demand further. Sweater sales are still backward, but late buying may bring them up to last year. Heavyweight underwear also has picked up, and deliveries are at their peak. Lightweights are slow, as buyers have held up orders, pending 1931 openings this week. Women's full-fashioned hosiery is moving more satisfactorily; considerable September business has been placed; there is a good call for trams hosiery retailing at $1.35 to $1.65. Half hose continues weak.

Silk Textile Markets

Raw silk passed an unsatisfactory week, closing with prices slightly off; manufacturers continue to buy lightly and for nearby delivery only. Thrown silk inquiries have increased and mills are hopeful of an early improvement in sales; grenadine yarns moving steadily; trams quiet. Spun silk continues firm, with a fair call, both spot and future; orders are still behind this time last year, but the market is confident of a good September. Broadsilks are moving actively; both cutters and retailers are placing substantial business. Demand stresses cantons, and there is keen interest in flat crepes. Sheers and velvets enjoy a light but steady call, transparent piles being a big factor in the popular-price dress field.

Textile Shares Lack Interest

Stocks That Must Be Sold Meet No Support

Boston.

AMID-SUMMER dullness prevails in the textile share market and any sales that have to be made bring low prices. Nashua pfd. has not been on the market for quite a period but the bid and asked quotation has been on the down grade, resulting in a five share lot at the stock auction bringing only 68, a decline of 9½ from previous sale. American Woolen preferred has been slowly slipping for weeks from its year's high of 44⅞ and the lowest sale in several weeks occurred recently at 25⅛. A group of leading New Bedford mill shares show an average price this week of 29.87 as compared with 30.65 last week and 36.18 three months ago. The Fall River mill group average 27.55 this week as compared with 27.61 a week ago and 29.84 three months ago.

Despite the lack of interest holders of New Bedford issues seemed unwilling to shade their asking prices to revive the market. In Fall River, on the other hand, stocks showed a definite tendency to drop in an effort to create trading interest. Wamsutta again figured in the week's trading with a few sales reported at 14½ with further bids at that level but no offerings to be had.

A little trading was done in Associated Textiles stock, transactions said to have been put through at 35 to 36½ in odd lots. Gosnold changed hands at 15 to 17 but a reported bid of 18½ brought no offerings of shares at that figure.

Kayser Net Profit Lower

Net income of Julius Kayser & Co. for year ended June 30 is equal after employees' preferred dividends, to $2.83 a share on the 478,120 no par common shares, against $8.56 a share on the 322,747 common shares in the preceding year. Consolidated earned surplus account follows: Earned surplus June 30, 1929, $9,356,628; additional net income for year ended June 30, 1930, before adjustment of raw silk to market value $1,410,607; total surplus $10,767,235, deduct adjustment for education of silk inventory and contracts to June 30 market value ($936,452); less reserve for market fluctuations of raw silk ($500,000); net adjustment, $436,452. Stock dividend July 1, 1929, $806,865, excess over ledger value of treasury stock $26,196; provision for additional taxes for prior years $130,000; preferred and common dividends $1,980,161; leaving earned surplus June 30, 1930, $7,387,561.

In his letter to stockholders President Van Praag stated in part: "The worldwide conditions of industrial depression that prevailed during the greater part of our fiscal year naturally have had their effect upon the business of the company, though to a less degree than might have been expected. While the total in dollars of our sales for the year has been appreciably less than it was for the year preceding, yet despite an almost universal curtailment in buying, in actual volume of our merchandise sold (unit sales) the difference between the results of the two years is negligible." Mr. Van Praag stated that he believed the formation of the Australian subsidiary would restore to his firm the market of which it had been temporarily deprived because of the Australian tariff. This subsidiary's plant at Melbourne is scheduled to start production early in 1931.

City Mfg. to Liquidate

Stockholders of the City Mfg. Co., New Bedford, Mass., at a special meeting authorized the directors to dispose of the mill's assets and wind up the business of the corporation. The number of shares voted in favor of liquidation was 5,189 out of a possible 7,500. Recommendation for liquidation was made to stockholders recently in a letter issued by directors. The vote of the directors empowers the directors to sell at public or private sale all or any part of the property of the corporation, both real and personal, upon such terms and conditions as they deem expedient.

Bates Passes Dividend

Directors of the Bates Mfg. Co., Lewiston, Me., voted to omit the regular semi-annual dividend of $2 per share due at this time. Passing of the dividend marks the first interruption in payments in a great many years. Among the various New England mills, Bates, up to this time, had been one of the outstanding in the matter of dividends and stock of the company was for years regarded as gilt-edge. From February, 1922, through February, 1926, the company paid at the rate of $12 a year. In August, 1926, the dividend was reduced to an $8 annual basis, and continued at this rate until February of this year when it was reduced to $4 annually. Currently the stock is quoted at 75 as against quotations running as high as 141 a year ago when the New England Public Service Co. acquired the controlling interest in the mill.

Belding Heminway Loss

The report of the Belding Heminway Co., silk manufacturers, for the first half of 1930 which was made public this week, shows a net loss of $1,155,381, after depreciation, interest, inventory write-downs and obsolescence and reserves for contingencies. During the same period last year this company made a net profit of $191,295.92. The balance sheet as of June 30, last, indicated a strong position; current assets totalled $6,073,014.36 against current liabilities of only $253,395.43. The company's cash balance on that date totalled $1,702,285.

Commercial Factors Increase

The sales volume for the first six months of 1930 transacted by Commercial Factors Corp. is announced as more than $51,000,000. This is an increase of 5% over the corresponding period last year.

Commenting on the matter, Robert G. Blumenthal, president, stated: "The increase in our volume for the half-year period ending June 30 is due to new business acquired, as few of our old accounts were able to show increased

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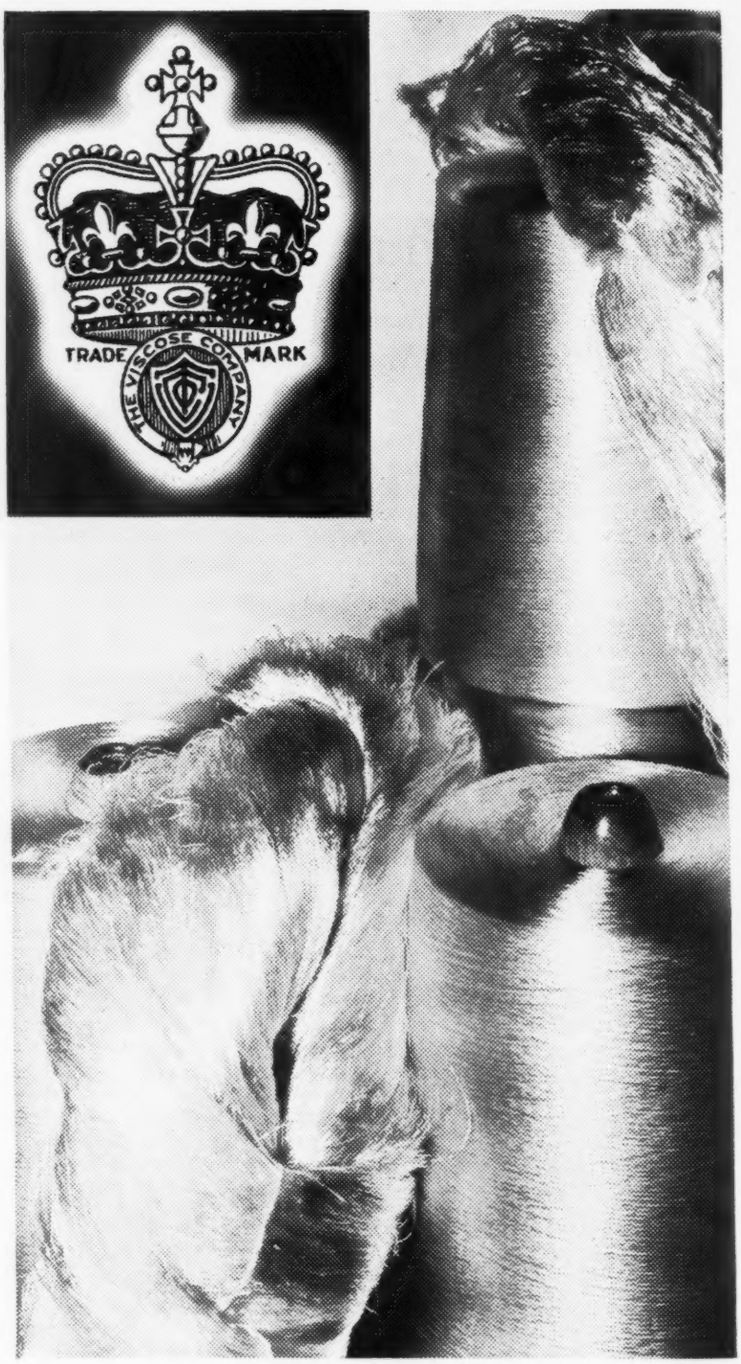
1..2..3..4..5 *times filtered to make the finished product* SMOOTHER, FINER!

REFINING Crown Brand Rayon Yarn begins with the basic viscous mixture. Five times this semi-liquid substance is filtered. Not just through five successive filters, one after the other in rapid procession, but covering a period of three days during which time the mixture is aging and settling. ⚜ Then the tanks come under a vacuum so that even minute air bubbles may be withdrawn. Every precaution is used to keep the mixture fine and free-running as it enters the spinnerette. And here again, just before the substance "spins out" into tiny filaments, another filter is encountered. ⚜ This super-care in refining results in rayon yarn of super-smoothness and finish. It keeps the texture even, minimizes weak spots, assures you strength and durability in the finest, most gossamer deniers. ⚜ Every one of the more than thirty different varieties of Crown Brand Rayon Yarn is made with this same exactitude. Let us help you choose the kind best suited to your requirements. It may be had in the skein or processed in any way to make it convenient and economical for your use.



THE VISCOSE COMPANY
171 Madison Avenue New York City

sales during this period. The continued decline in raw cotton, silk, and wool was, of course, reflected in lower finished goods prices which, together with particularly slack demand in June and July, reduced materially the dollar sales volume of the individual manufacturer."

Boston Stock Auctions

The following sales of textile shares were made at Wednesday's auctions:

Shares	Mill	Par	Price	Change
30	Associated Textile	....	35–36½	....
43	Naumkeag.....	100	82–86	—2
20	Farr Alpaca.....	100	68¾	+¾
5	Nashua, pfd.....	100	68	—9½
4	Androscoggin.....	100	64½	—7
100	United Elastic...	....	25¼	+1¼

202 Total

Further Decline in South

CHARLOTTE, N. C.—A further decline was registered for the week ending Aug. 8 in the bid price of 25 most active common stocks of southern textile mills according to the weekly review furnished by R. S. Dickson & Co. The closing price for the week stood at 69.88 as compared with the close of 70.32 for the previous week, or a net decline of 44c. per share.

Curtailment Announcement Causes Burlap Rise

According to cables from Calcutta, the Indian Jute Mills Association will curtail operations one week a month. This move will start with the beginning of the last quarter of this year and continue through the first quarter of next. The present curtailed schedule expires Oct. 1.

At mid-week, spot prices were quoted 5 points higher, although actual trades took place at slightly less than new quotations. Future shipments were firmer, but there was not enough trading to test the market.

The 8 oz. 40s for spot and two weeks were 4.85c.; August shipment, 4.90c. The 10½ oz. 40s for spot, two weeks arrival and August shipment were 6.25c.

Boston Wool Receipts

Receipts of domestic and foreign wools at Boston, also imports at Philadelphia and New York for the week ended Aug. 9, based upon data compiled by the Market News Service of Bureau of Agricultural Economics, Department of Agriculture, are as follows:

	Week Ended Aug. 9	Total to Date 1930	Total to Date 1929
Domestic....	28,549,000	203,869,000	146,036,000
Foreign.....	688,000	47,991,000	75,305,000
Total.....	29,237,000	251,860,000	221,341,000
IMPORTS AT PRINCIPAL PORTS			
Boston.....	688,000	47,991,000	75,556,000
Philadelphia	661,000	31,766,000	54,001,000
New York...	174,000	29,177,000	48,934,000
Total.....	1,523,000	108,934,000	178,291,000

Cotton Yarns Weaken After Report

Lower Raw Material Prices Affect Spinners Quotations

Philadelphia

COTTON yarn merchants this week withdrew from the position taken on last Friday after the Government crop was given to the public, and a ½c. markdown in carded yarns was registered as a consequence of receding cotton prices. At first blush, it was thought yarn prices might be maintained. This notion was considered subject to revision when, a day after the report came out, cotton slipped—not a great deal, but enough to encourage bear interests—and this week opened with the local cotton yarn market much shaken. Early fluctuations on the downward side disturbed bullish elements besides strengthening the position which had been taken by yarn consuming manufacturers in delaying purchases until need to operate became imperative.

Yarns have declined locally to basis of 22c. for 10s carded singles as the asking price of some merchants, although it is maintained that price can show no profit to spinners, and that some are letting no yarn go at that figure. This, however, is a matter between buyer and seller, and while yarns moved in moderate quantity when it became known that offers of the lower price had been accepted, in instances, some commission houses were quoting ½c. higher, but receiving only weak response. There was so much for the market to combat, besides the drop in cotton, that it soon came to be realized that traders would have to play around the 22c. level pending some development to give the market situation a different aspect. It had become noised about that some important southern spinners were intent upon marking their prices a fraction higher.

The belief gained ground that as numbers of manufacturers whose view had been sought expressed satisfaction with the showing made in the Government report, there soon would be seen a modest revival of the immature buying movement which had taken a start while cotton was rising previous to the crop estimate. As if lending support to this assumption, buyers manifested interest in offerings of two-ply warps at 23½c. for 20s and 28½c. for 30s. These were typical of recessions conceded by yarn merchants and were said to be from 1 to 1½c. below the bottom prices of a few spinners. It is understood a few sales of small lots were made. These, in conjunction with the reception accorded to offerings, served to uncover some openings for business. Buyers will probably adhere to their hand-to-mouth policy, some traders expect, until the September yield estimate and condition report appear.

Knitting Yarns Unaffected

Carded knitting yarns are said to have shown not the slightest reaction to the Government figures. In this division a quieter situation than that in the weaving group is anticipated, since the report is general that underwear openings are likely to be held up for about a month. Houses which have a large business in underwear yarns admit they may be hard hit for the time by the raw cotton market, but that their inning will come eventually and may be a more satisfactory one than if they undertook now to load manufacturers with yarn while the price is at the bottom for 1930.

Mercerizers Quiet

As matters stand just now, it is pointed out, mercerizers are not likely to make offers for combed yarns that might eventuate in their getting the yarn. Their attitude is regarded as accentuating the dull situation in combed yarns. Leading dealers have refused to venture an opinion or indicate their idea of value, further than to say "there has been no change since last week." This "summary" is said to apply to sales and prices alike. No combed yarn is moving in worthwhile quantity, according to several dealers who operate in it more as a side line.

●

Boston — Movement of cotton yarns for month to date has been far from encouraging. Curtailment in spinning establishments continues to restrict production, though consumption is even smaller. Some well-posted men in the trade argue that buying is at the low point and that any change must develop wider interest in actual booking of orders. While no immediate change is looked for, any sizeable increase in demand would undoubtedly affect the price structure in opinion of those close to the market. Meantime, concessions are being made in certain quarters to induce business, particularly where mills are in need of new orders and especially in coarse numbers.

It is believed that the process of clearing accumulations has now reached the point where yarn may become unusually sensitive to any upturn registered in cotton. The majority of sales yarn spinners who appear to have overestimated the rate of yarn consumption during the last eight or ten weeks and who, therefore, kept too many spindles in operation, during

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Celanese Has the Following Superior Qualities:

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Its colors are unusually fast

Its "white" never turns yellow

To every weaver and knitter who finds his fabrics of first quality yarn continually undersold by similar constructions made of the identical brand of yarn, inferior in grade and bought at a cut price—Celanese Yarn offers the solution.

Celanese Yarns are sold on a single quality standard only. There is but one grade of Celanese, *the first.* In specifying Celanese Yarn, a mill is assured of receiving the finest modern yarn that science is able to produce.

The policy of Celanese Corporation of America in maintaining a single quality standard for every pound of yarn it produces removes the danger of unfair competition. Under this policy, mills, converters, garment manufacturers, and retailers are protected from being undersold on fabrics of sub-standard yarn, cut in price because of inferior yarn bought at lower costs.

Preference for Celanese Yarns is due, not only to the steadfast adherence to the single quality standard, but to the unique qualities of Celanese Yarn—unlike any other type of textile fibre.

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CHARLOTTE, N. C.—819 Johnston Building

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August are very likely to go to the other extreme. Market stocks of yarns, it is contended, remain small—much below the stocks carried a year ago.

At present levels prices are based on 10 and 11c. cotton, a condition which cannot long endure unless raw material values drop to that level. Curtailment among spinners has been more far-reaching than many believe, and advices from the South reveal that no great quantity of stock yarn exists. It is argued that with the first real demand for yarn, prices can move only in an upward direction.

●

NEW YORK—Since the issuance of the Government crop report, carded yarn trading has slowed down once more. In several centers there was a notable increase in orders for the time being. In many cases special offers induced buyers to place fair-size commitments, and, even though cotton is now lower, the actual prices paid last week could not be bettered today by buyers.

The continued decline of cotton all this week has acted as a damper on trade. There is still unplaced business around the market, but bids are too low to attract sellers. It was stated that about the only thing moving in the coarser counts were the insulating yarns. Here again, prices offer no consolation to those who take the business.

Prices are nominally unchanged and there is a wide variation between spinners' and buyers' ideas. A few spinners are more willing to consider the lower bids, but the majority seem to be keeping at former levels.

Plush manufacturers feel more cheerful since the announcement that automobile makers were starting production once more. Little actual yarn business was placed, but inquiries were more numerous and buyers appeared to be sounding out the market.

Within the last two weeks, carpet yarn volume has aggregated a fair poundage according to certain sellers. Prices were only fair and individual orders were unimportant, however, spinners were glad to secure some future specifications.

Worsted Yarns Still Dull

Knitters Show More Interest at Present Than Do Weavers

PHILADELPHIA.

INTEREST in worsted yarns centers in knitting numbers. Not much business is passing in either the weaving or knitting group, but there appears better promise of early buying recovery in the latter. Knitted outerwear manufacturers may be said, even in the absence of orders, to be assured of a fairly brisk movement by September, and it is no secret that few have yarns laid aside for the beginning of that movement.

MEN'S WEAR YARNS DULL

Yarns for the men's wear trade are reported by practically all operators as presenting as complete a picture of inactivity as marks any one item in textile manufacture. Orders are so few and inquiries of such little import, it is declared, that there is nothing to indicate to spinners what results weavers have had from their showings of samples; whether there has been any departure from style as originally forecast, or any change in fabric construction to meet price conditions. Weavers, it is stated by one or two representatives of spinners specializing in men's wear yarns, affect to be so little interested in prices that it seems needless to quote except when asked specifically for a price.

While there is apparent a determination to defer yarn commitments for men's wear until manufacturers have firm orders for their goods, there is said to be developing a better interest in yarns in the dress goods division. Inquiries indicate a somewhat extended use of combination yarns, in which, obviously, fancy twist will be specified. Worsted in twist with rayon, and also with silk and cotton, is coming to be mentioned as a more interesting item, one in which price competition figures in less degree, necessarily, than in staples. There is thus no price movement in weaving yarns, and no changes of moment in quotations on knitting numbers.

English-spun 2-20s 50s commonly quoted $1.05 the last few weeks, are available at $1.02½ to $1.05. Some manufacturers say the lower figure given represents the top of the range. Spinners state that as they are getting $1.05 for standard yarns of this count and content, $1.02½ is the low side of the price range, and may apply in instances to yarns not spun from wool grading 50s. There is, however, a trend to finer yarns which may have a softening influence on the market for quarter-blood 2-20s. According to some yarn factors, considerable business in 40s has been placed.

FRENCH SPUN FOR KNITTERS

There is indicated an increasing use of jersey cloth in the manufacture of bathing suits. This seems to be the explanation for a stimulus for interest in single 26s French spun. There is a tendency to use finer yarns in the English-spun division, and this is said to account in part for a hesitancy to contract just now for French system. Both the sweater and bathing suit groups appear to be groping for light on the question of what distributors will specify when they come to market with the already overdue orders. The falling markets for rayon and cotton yarns are said to have had a pronounced adverse effect on the market for worsted, and this in conjunction with the tardiness of distributors of finished goods is represented to be what is holding worsted yarns up for the present, making probably for a tight situation a few weeks hence.

◆Good Undertone In Spun Silk

THERE is a stronger undertone in the spun silk market, and some spinners report a good demand, both spot and future. One large company is writing good-sized orders, some for delivery as far ahead as December.

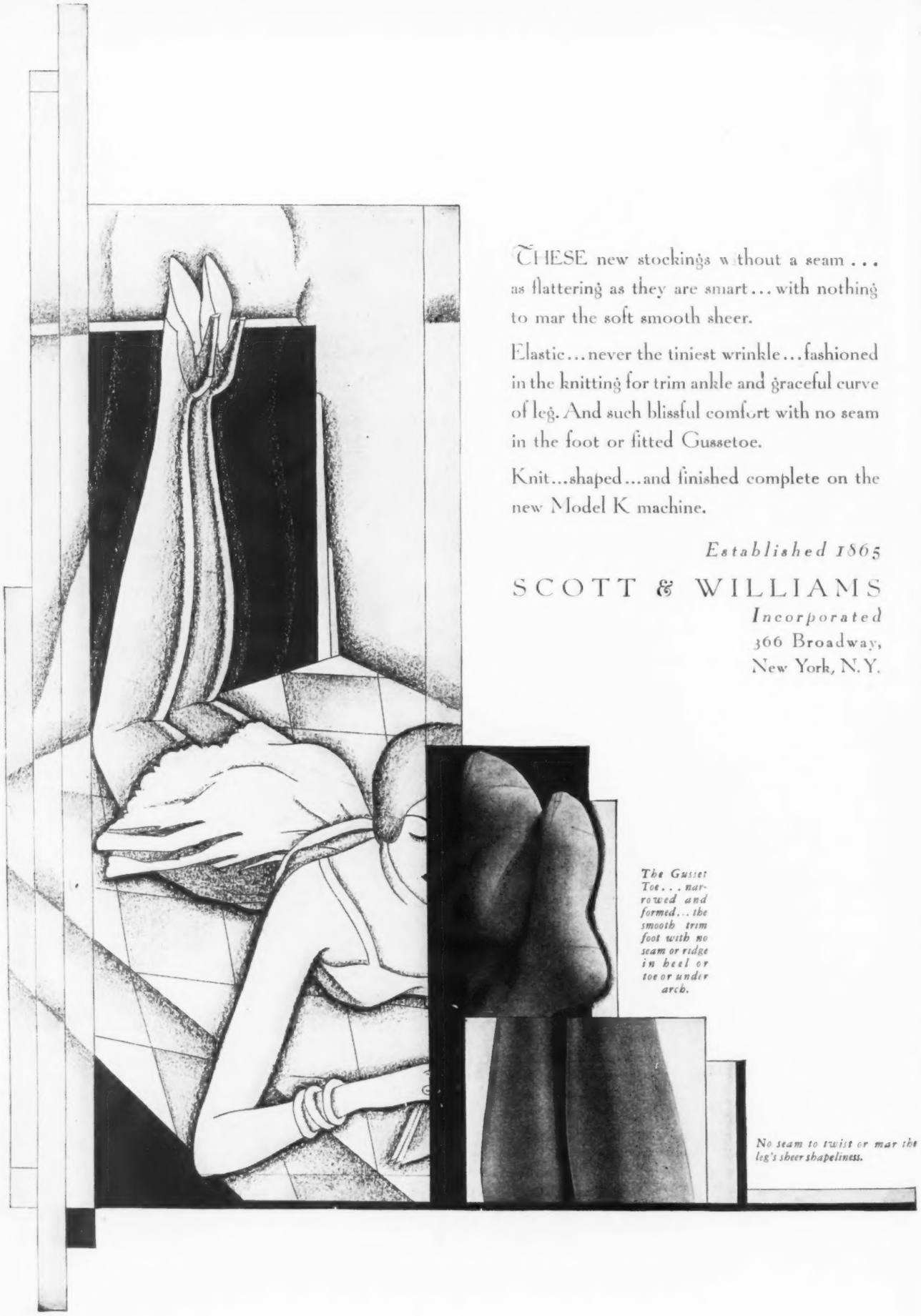
This is not a general situation, however, as other spinners find difficulty in moving stocks. There has not been any general pick-up in demand, and orders are considerably behind this time last year. The market continues confident and is relying on September to bring a real improvement. Prices are steady. A few small mills are selling below list, to effect quick turnover, but most of the big spinners are holding to quotations.

Current demand is mostly from the broadsilk trade, and these weavers are not as confident as the spinners would like. The outlook on the whole is satisfactory. Stocks on hand in spun silk mills are small; spinners are producing very cautiously, pending some decided improvement at the buying end.

◆Thrown Silk Inquiries Increase

MANUFACTURERS, both in the knitting and weaving industries, are showing more interest in thrown silk, and throwsters are receiving many inquiries. Actual orders have not increased to any extent, but the trade is encouraged by the new feeling among the manufacturers and a pick-up is looked for within ten days. Current buying is mostly nearby and on the average is equally divided between the weavers and the knitters. Hosiery mills are buying grenadine twist yarns steadily, though always in small quantities; trams are quiet.

Demand is uneven, some throwsters reporting a better movement of broadsilk yarns for weaving, with others doing their best business at the hosiery end. So far as grenadines are concerned, mills seem to have passed the experimental stage and are fairly well convinced of the possibilities of this yarn. Due to the uncertain hosiery



THESE new stockings without a seam . . . as flattering as they are smart . . . with nothing to mar the soft smooth sheer.

Elastic . . . never the tiniest wrinkle . . . fashioned in the knitting for trim ankle and graceful curve of leg. And such blissful comfort with no seam in the foot or fitted Gussetoe.

Knit . . . shaped . . . and finished complete on the new Model K machine.

Established 1865

SCOTT & WILLIAMS

Incorporated
366 Broadway,
New York, N.Y.

The Gusset Toe . . . narrowed and formed . . . the smooth trim foot with no seam or ridge in heel or toe or under arch.

No seam to twist or mar the leg's sheer shapeliness.

market, production is still limited, however, and mills are averse to cover for more than immediate needs.

◆Rayon Waste Hesitant and Spotty

THE expected mid-August improvement has not materialized so far as the rayon waste market is concerned. Buying continues hesitant and spotty, with much insistence on price. Several dealers remarked this week that manufacturers are confused regarding the relationship between rayon waste and rayon, and look for a cut in waste prices because rayon prices have been reduced. The two divisions of course are separate and the rayon revision has not affected waste quotations at any end.

One promising development for waste dealers is that the rayon curtailment during recent months has perceptibly cut into the output of waste, with the result, according to certain factors, that current waste production is now about equal to demand. The existing waste surplus represents stocks that accumulated prior to the curtailment, and this surplus is expected to be cleared out quickly once manufacturers begin fall buying on a normal scale.

Ask Rayon Price Guarantee

Manufacturers Skeptical About Stability of Rates

RAYON yarn is in a slightly better position than before the price cut, but the pick-up is slower than producers had expected. A very general hesitancy prevails; the reduction has not convinced the consuming industries of rayon's price stability; manufacturers confine their contracts to spot and nearby deliveries; and they are continually asking the rayon companies for some definite assurance as to price levels.

The uncertainty regarding quotations has worried the manufacturers to the point where some are talking about using silk instead of rayon. This does not appear to be a logical move, from the point of view of the manufacturer, as there is still a sharp division between the synthetic and natural fiber prices. However, representatives of the producers who discussed that point this week, admitted that a certain amount of business might be lost this way. It was argued that manufacturers who had had difficulty in competing with other manufacturers who bought rayon below market figures, might take this step, even though such a move would be ill-advised.

Won't Buy Ahead

The uncertainty brings further pressure for a price guarantee, though up to the present the rayon producers have not seriously considered such action. The manufacturers propose various forms of guarantee and insist that they cannot afford to buy ahead, unless something of the sort is adopted. One plan suggested to a producing company was to pledge that any future reduction in price would be retroactive for 60 days on all orders. This it was contended, would protect the manufacturer in buying ahead.

Current buying is spotty. Weavers are placing a little more business, but the normal mid-August demand has not appeared. Southern hosiery mills show some interest and have placed moderate spot orders. Knitted underwear mills have eased up on commitments, due to a slackening of demand for finished goods. The underwear trade grows more and more interested in the finer deniers. The practice has been to turn from 150s, which was the usual denier for underwear, to the 125s and then after a while to the 100s. However, some companies have been so satisfied with their experiments with the finer denier that they have turned directly from the 150s to the 100s.

The inferior yarn situation continues to improve. There is little true inferior available; the recent price cut made it unprofitable for manufacturers or others to sell standard yarn at the price of the inferiors, with the result that substandard now offers slight competition to standard yarn.

◆Cotton Wastes Drifting Along

BOSTON.

THE cotton waste market is drifting along with cotton, mid-summer inactivity the main feature and the general run of prices neither high nor low as related to ruling values on cotton day by day. It cannot be said that there is any trend to the market. Wastes are not going it alone, they are positively tied up with the cotton situation at this time.

The week was not featured by any notable change in quotations, the market day by day showing little vim and only a modicum of confidence. Prices were nominal, which is another way of expressing the fact that buyers were in the saddle and could drive prices in the direction they wanted. Considerable resistance is nevertheless offered when it comes to bidding 10c. or thereabouts for peeler comber.

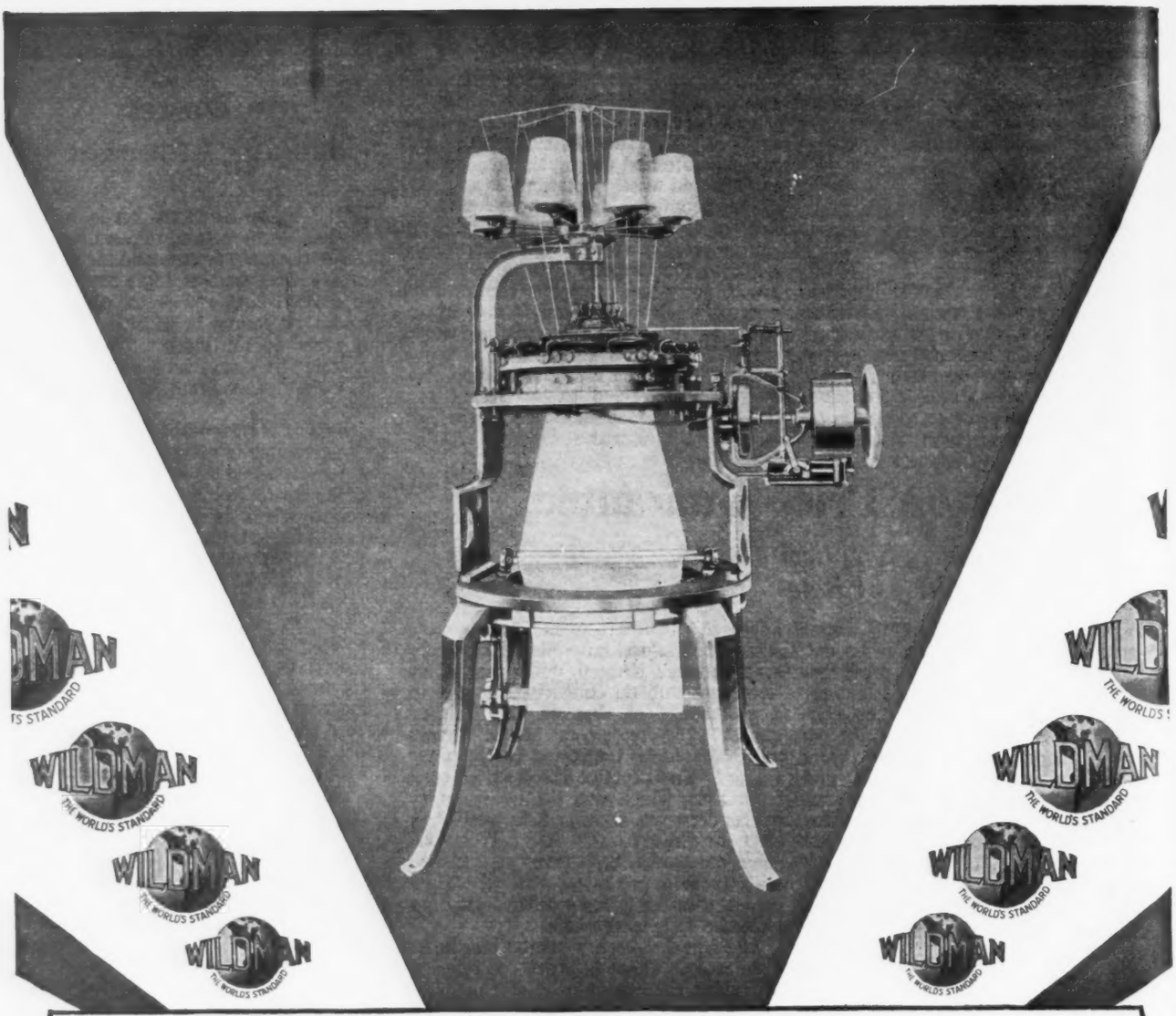
There is nothing impressive about consumer buying of cotton waste. Users come and go when they feel like it, hardly taking the market seriously, under the impression that the market cannot get away from them and one and all expressing the opinion that if there is any major change in wastes it is more likely to be downward than upward. There has been some buying of off-grade comber wastes and also a little selling of the best comber. Egyptian and Sak. combers are quite inactive. There has been no large activity in strips although there is always an immense amount of this material covering its several varieties available. Some houses are doing a fair business in thread wastes at current prices, single spooler not above 8½c. Bedding wastes are spotty in demand and easy in price.

Cotton Breaks Below 12c.

Government Crop Estimate Is Followed by Decline

THE Government report started a selling movement in the cotton market which sent prices to new low records for the life of the prevailing contracts. There had been a pause in the decline prior to the publication of the report and technical rallies probably due to the possibility of bullish crop figures. Indeed, there was an impression among some members of the trade here that the report would point to a crop of under 14,000,000 bales. The actual report, showing a lower condition than any reported by private authorities, but a crop indication above the average of private reports, led to liquidation and reselling. This was supplemented by a little hedging from day-to-day and the price of new-October contracts broke below the 12c. level during Wednesday's trading. The feeling appeared to be that there would have to be either such a drastic reduction in crop ideas as would bring the trade in to buy extenively against forward commitments, or a very decided revival in the cotton goods markets of the world, to prevent a decline under the weight of the early movement.

The official report placed the condition of the crop at 62.2% and the indicated production at 14,362,000 bales of 500-lb. gross. There was considerable comment on the comparatively high valuation placed by the Crop Reporting Board on the condition figures. The average of the private reports made the condition 66.5 and the indicated yield only 14,190,000 bales, or 172,000 bales less than the Government forecast. This



Use Wildman Body Machine for the manufacture of quality Rayon

WILDMAN MANUFACTURING CO.
Norristown, Pa.

WILDMAN
SPRING NEEDLE BODY MACHINE

evidently was due to the allowance made by the Crop Reporting Board for prospective light weevil damage and for the fact that there is usually a tendency to under-estimate condition in drouth years.

With the world's carry-over figured at a little above 6,000,000 bales, a crop indication of approximately 14,400,000 bales indicates an available supply for the season of 20,400,000, which compared with prevailing rates of consumption certainly looks like more than ample. At the same time, the crop has continued to deteriorate since the first of August over some important sections of the belt. There has been partial relief from drouth conditions, but good rains are still needed over much of the central and western belts, and it is possible that by the end of August crop ideas will be considerably reduced.

An Aug. 1 indication is by no means final, as may be noted from the records of previous years, and actual ginnings may be anywhere from more than a million bales under to over a million bales above the Aug. 1 figures, although during the last three years with the use of "flexible pars," the Crop Reporting Board has been steadily cutting down the margin of error, or minimizing departures during the balance of the season.

In short the crop may either improve or deteriorate during the balance of the season, and there are some in the trade here who believe that good rains before the first of September in central and western belt sections would make a decided increase in the yield. Unless there is adequate relief from drouthy conditions in these sections, however, the crop indication may have to be cut down considerably by the first of September while rains after the beginning of September would hardly help the situation to any material extent. Meanwhile, with disturbances in India, very unsettled conditions in China, poor trade in Europe, and continued drastic curtailment of mill activity in this country, there seems little reason to suppose that spinners will abandon the policy of hand-to-mouth buying, and if this is persisted in, the increasing new crop movement may reasonably be expected to send prices still lower. It will still be some time before the new crop becomes available in sufficient volume to add very substantially to the supply of contracts, however, and in the meantime, crop ideas may be revived and trade may show some improvement.

●

BOSTON—The staple cotton market has shown little change during the week. Demand for extra staples and for foreign cotton has been quite restricted but some of the shorter selected cottons have been moving more freely. It will take the market some little time to digest the recent estimate, as while the prospective yield is not large for normal times, it cannot be overlooked that general business is slow, with the spinning and goods trade depressed, and the carryover is large. Summer demand for prompt shipment is not encouraging.

Merchants are advising conservative scale-down purchases on the assumption that more cotton will be consumed at 12c. and lower than was the case last season, in addition to which consideration should be given to the probability of greatly reduced competition from Indian cotton, owing to narrower differences and the likelihood of a smaller supply of Indian cotton. This season's takings at the five principal New England receiving centers, excluding Boston, total 640,650 bales. Last season, 666,965 bales were taken, 682,948 the previous year and 923,240 in 1926-27.

●

MEMPHIS, TENN., Aug. 11.—Customary disposition to stay close to the shore ahead of a Government report and a Government estimate on the crop, which was much higher than the cotton trade here expected, were not conducive to an active market last week. As one shipper puts it, "just enough business is being done to prevent hope from flickering out."

Insufficient time has elapsed since the report for its effects on forward business to be gaged, but there is already some evidence that it will interfere further in the effort of cotton merchants and mills to compose their differences in price ideas. The average merchant here is quite ready to admit that the Government is conservative on the Atlantics and may have under-estimated the three States by one or two hundred thousand bales; that the estimate on the western belt may be in line with prospective production. However he is not so confident as to Arkansas, Mississippi and Tennessee, sources from which he draws his principal supply, as to be willing to budge much from his ideas as to basis.

GOVERNMENT REPORT A PUZZLE

He is more puzzled over the Government estimate than disposed to question it; puzzled because it indicates the 10-year average yield per acre on a condition of 62.2% of a normal, by far the lowest end-July condition ever reported by the Government. Resultant yield indications were due to increased pars, increased mainly, it is understood, because of the absence of boll weevils. But there were no weevils in Tennessee last year, practically none in Arkansas and very few in Mississippi. Yet, Tennessee with a condition of 61 against 81 last year shows practically the same indicated production as it did at this time last year; Government reports an acreage increase of 7% in Tennessee. The estimate gives Mississippi a condition of 60 against 76 last year; Arkansas 46 against 73; the indicated probable production is 1,626,000 bales against 1,921,000 bales and 1,106,000 bales against 1,449,000 for the two States respectively. According to Government estimate the two States increased their acreage about 2%.

Drouth intensified over most of the belt west of the Atlantics during the week. A few localities, mostly in west and northwest Texas, received effective rains, but there was no general relief over any area of large extent. The crop has undoubtedly lost ground since Aug. 1, due to continued drouth; relief now would help materially although not as much as it would have a week ago; when it would be too late for rains to benefit is uncertain but the dead-line cannot be very far away unless frost is very late.

Wool Sellers More Confident

Market Very Firm But Other Raw Materials Continue Sluggish

THE wool market is more active than it was, and despite the inability of manufacturers to secure concessions, they have been buying more freely of late on the assumption probably that the trend of the raw material market is upward rather than downward. Wools recently purchased are being delivered in most cases are rapidly as the facilities of the various houses which made the sales, permit.

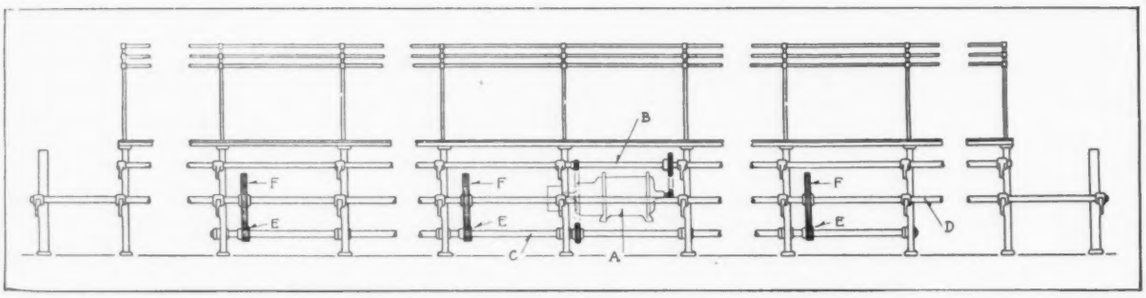
There has been a movement in Texas wools, especially in the 12-months grade, for lots showing a fairly good length of staple. Some really choice lots have been held a little higher, but 75c. appears to be about the market in actual sales. Eight months' wools are quiet, with quotable prices around 68-70c. clean basis.

In the West, there is little wool left to purchase and almost all of the western buyers are back home. The season has been a short one, with close to 95% of the wool now out of the grower's hands in the opinion of a number of observers. The dealers probably have taken close to 200 million pounds to date and the cooperatives around 115 million pounds.

Consumption of domestic wool in the United States during June was at the high point since January, while conversely consumption of foreign wool was at the low point of the year. Utilization in grease pounds for concerns reporting, the usual 85% of the total industry, for June was 32,772,000 as compared with 32,641,000 in May. The increased use of domestic wool was offset by the decrease in the use of foreign wools.

A feature of importance at a time when the National Wool Marketing

A TYPICAL READING IMPROVEMENT



The above diagram shows the three-point gearing arrangement of the new Reading Central Drive. A = motor; B = handwheel shaft; C = torsion-taking driveshaft; D = cam shaft; E and F = pinion gears from intermediate shaft to cam shaft.

The Reading Three-Point Drive

A patented feature designed to distribute the driving force so as to offset torsional strains and the vibrations that accompany such strains in high-speed machines.

An *intermediate shaft* with three driving connections to short, rigid sections of the main shaft produces identical cam action in every section of the machine.

The resulting efficiencies of this new design are apparent—*no inherent vibration, better fabric, less attention or repairs, longer life.*

Textile Machine Works
Reading, Pa.

The "READING"
Full-Fashioned Knitting Machine

Corp. is carrying on its great experiment of handling the greater part of the new clip more directly in the interests of the wool growers, is the fact that the amount of foreign wool suitable for clothing purposes in the United States is at the low point for many years. Sellers of domestic wools will have a free field until middle or late fall when the foreign markets in Australasia and South America will begin to offer their new season's wools.

The worst is all out as far as the wool trade is concerned, and now that the clip is in strong hands, little or no foreign competition, mills probably short of wool and the general industrial situation in the United States slated for a recovery in the fall, the last four months of the year ought to permit the wool trade very materially to retrieve some of its losses. Three months of firm prices in the Boston wool district during which time negotiations were being carried on for taking the clip out of the hands of growers can apparently indicate only one result for the weeks to come and that a firmer, stronger, more active and probably higher market.

Mill Wastes Inactive

Mill buying of wastes is quite unimpressive and the market continues in a rather doleful frame of mind. Traders are finding it difficult to sustain prices and while there is no distress selling at this time, there may be in the future if consumers stay much longer out of the market.

It is considered a strange and unusual occurrence that wastes should exhibit marked weakness at a time when the wool market is firm to strong. A more conservative view is that wastes prior to the recent limited decline were selling too much on the high-side. Mills are not showing any interest in offerings, confining themselves to picking up a few small lots of desirable materials at easy prices.

Slow Call for Rags

Depressing conditions still feature the old rag market. Consumption of rags and reworks is not showing any expansion as yet; that such expansion will occur later is inevitable. In the meanwhile grading is being carried along on greatly restricted schedules and purchasing of mixed rags are being made only in small amounts to cover immediate needs. Knit stocks as a whole are quiet, but there is fair demand for blues and for white knits. White softs, light hoods and fancy knits seem to be a little less active. The market for fine mixed clips is firm and there is fair demand for all sorts of light clips. Little has been done recently in the way of moving knit stocks.

Demand for Fine Noils

The demand for choice domestic fine noils continues moderate at around 75% of the clean wool price as compared with 80 to 85% in periods of large demand and 65 to 70% during periods of depressed demand, which occurred for several weeks earlier in the year. Noil merchants would, of course, like much larger business than what they are receiving, but are managing to carry on, particularly as they realize that the hand-to-mouth policy of buying by consuming mills has left the latter with very little surplus stocks in their warehouses. The noil output in July probably showed some further increase over June, but exact information is not yet obtainable. While prices on noils below fine are generally nominal in absence of sufficient demand, dealers as a whole are not in any mood to make concessions.

Raw Silk Again Weakens

Price Drop Fails to Stimulate Any Real Buying

RAW silk is decidedly off, once more, with prices 10 to 15c. below last week, and buyers showing little interest. Sales have marked a sharp decline, and importers are pinning their hopes for improvement on the current cool spell which may stimulate fall demand for silk merchandise.

As may be seen in the silk table elsewhere in this issue, total contracts for the week of Aug. 6 to Aug. 12 were 144, against 604 the preceding week. The attitude of the broadsilk mills is a particular disappointment to importers; these weavers are uncertain about the fall prospects for their fabrics and are buying raw silk on a strictly hand-to-mouth basis. The current week brought better promise, in that broadsilk demand has registered an increase which should soon have a favorable reaction in the primary market.

August Silk Sales

August raw silk sales show a moderate increase over June and July, but so far they are well below last year. Actually the market trend is not fulfilling the economists' predictions of a turn for the better. The psychological aspect continues unsatisfactory. Manufacturers lack the confidence needed to buy on a scale which would strengthen the raw silk market. They are still clinging to the thought that silk may take a big drop, once more, and while this mood prevails, little real improvement may be looked for. Demand for raw silk at the hosiery end is indifferent; importers are getting occasional inquiries, and the mills are evidently eager to increase output, but are awaiting increased demand for their own products. Both weavers and knitters are determined not to hold any stocks of raw material.

May Close Filatures

Importers are encouraged by reports from Japan that the government is considering a plan to close all filatures for the months of February and March. No details of this project are available as yet, and it would be hazardous to take the report too seriously. It is within reason that some such step may be taken, however. The severe losses suffered by the Japanese filatures during the past nine months—some place the total financial loss as high as 150,000,000 yen—have resulted in strong pressure being exerted to force the Government to act. The remedial moves taken to date have been merely palliatives, and the situation in Yokohama and Kobe is virtually unchanged; huge surpluses have accumulated and there is a strong effort to realize on stocks, even if it means selling at a loss. There were reports in New York this week that the Japanese government was planning to assume one-half of the 60,000,000 yen loss arising from the warehousing of raw silk stocks.

◆Winter Underwear Demand Improves

HEAVYWEIGHT underwear orders are most active, and there is more confidence shown by the buyers. Jobbers and retailers now appear convinced that they need not look for any early price cut, and they are placing business somewhat more freely. Stocks of winter weights are low in many stores, and retailers want to have their lines complete by September. The demand is divided between union suits and two-piece numbers, in about the usual proportions, with the former considerably in the lead. Shipping continues at high pressure; much of the current business is being placed for early September delivery.

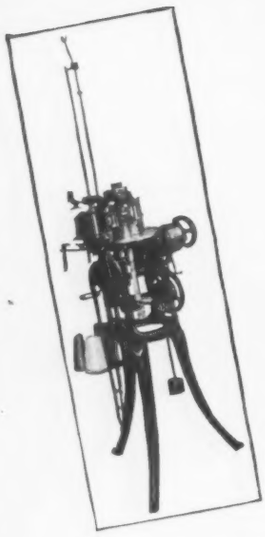
Lightweight interest centers on the spring openings this week. The heat spell spurred reorders for summer lines, and rayons and cotton athletic shirts and shorts both were fairly active, up to Monday when all lines slackened, pending the openings. Manufacturers were loath to discuss the prices of the new spring lines, and it seemed likely that some of the larger mills would hold off in announcing their figures for some days yet.

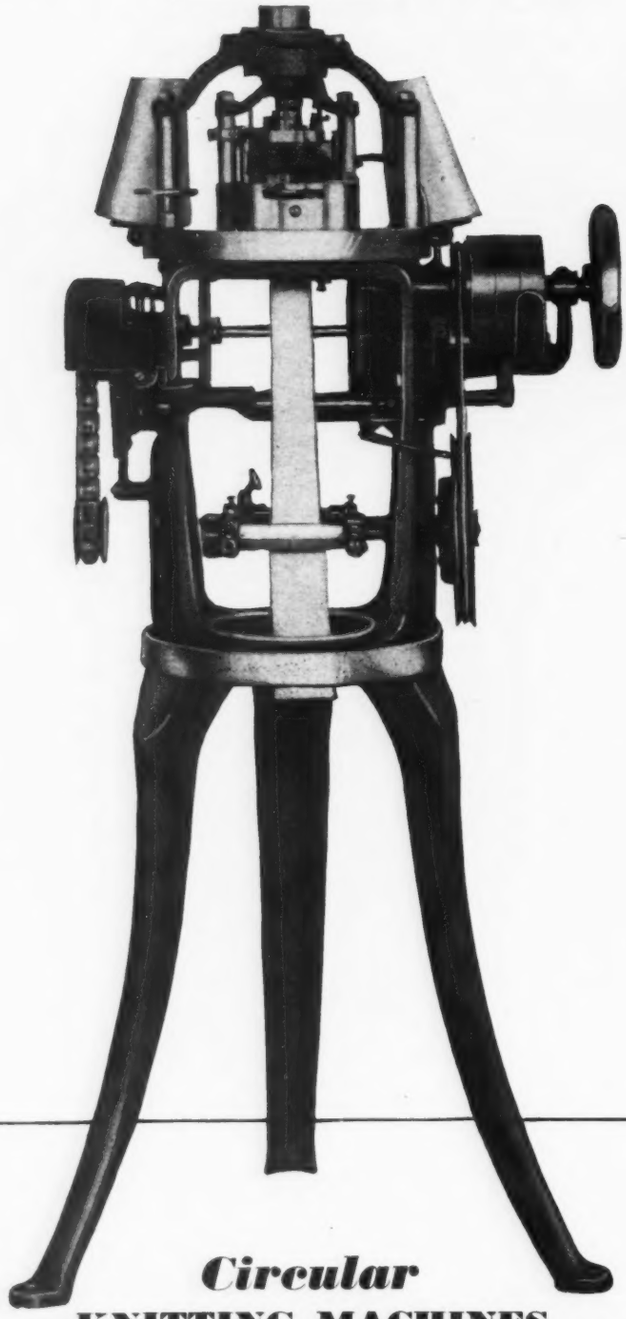
◆Staple Sweaters in Demand

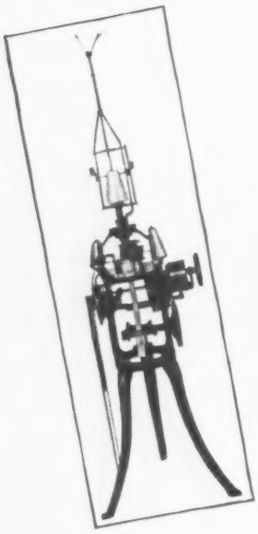
DEMAND for heavyweight sweaters is stronger, and mill men note a better tone in the buying market. Retailers and jobbers are placing fair-sized orders for September and October shipment; there is also some demand for end-August delivery. Buyers are

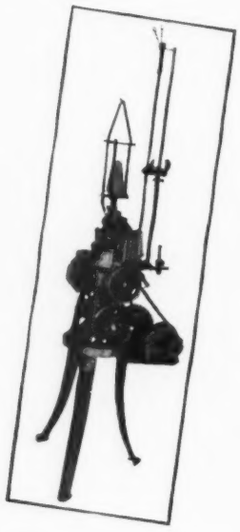
ALL TRUE-RIB

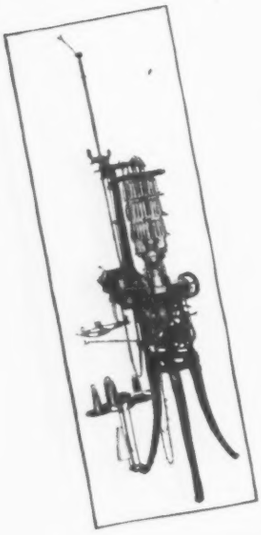
(Patented or patent pending)

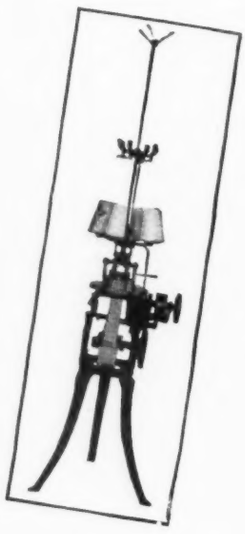












Circular

KNITTING MACHINES
BRAIDING MACHINES
CREASING MACHINES

FIDELITY MACHINE CO.
3908-18 Frankford Avenue
PHILADELPHIA, PA.

THE FIDELITY UNIVERSAL RIBBER

somewhat more confident. Popular-priced coat sweaters are in good call, especially coat models. Mill men are encouraged by the current outlook and now are hoping for a cool spell to stimulate fall interest. The excessive heat of the past three weeks was a big factor in discouraging advance buying.

BATHING-SUIT OPENINGS

Bathing-suit demand is definitely at an end; the light flurry of reorders prompted by the heat spell has waned, and the buying fraternity now is waiting the new openings. Some mills were reported to be showing their 1931 lines ahead of the set date which was yesterday, but there was no general trend to rush showings. Buyers spent the latter part of this week visiting the early openings; other openings will be held next week. Active buying is not expected to develop for a couple of weeks, or until the buyers have covered the entire market and studied both the new models and the new prices.

Hosiery Call Stronger

Women's Lines Improve But Half-Hose Is Weak

THE hosiery market has shared the slight improvement noted in all the knit goods markets. Women's full-fashioned numbers move more steadily, and retailers especially are showing increased confidence.

One large house reported that its salesmen who started on their fall trips Aug. 4 are doing better than was expected. The men have written numerous good-sized orders for September shipment, and they write that retailers in the North Central States are low on stocks and are anxious to fill in their incomplete lines. Some stores are notifying this company to rush shipments in advance of the delivery dates originally specified. Interest in the grenadine twist hosiery marked a slight increase and numerous mills announced new grenadine twist numbers this week.

TRAMS ALSO PICK-UP

Women's full-fashioned, tram yarn, also registered a pick-up; in the higher-end range, there was a good call for the numbers made to retail at $1.35 and $1.65. Orders are confined to nearby delivery for the most part, but agents look for better future business within the next ten days.

Men's goods are in a less satisfactory position. Sales have improved, but the call is mainly for low-priced numbers, and mills have difficulty in getting their rates. Higher-priced half-hose, even down to the 50c. numbers, are very sluggish, and no early improvement is looked for at this end. Mill men see a gradual improvement in call for low-end goods, and prices are expected to firm up soon.

One large hosiery mill this week reduced its price to jobbers of Bemberg full-fashioned hosiery from $6.75 to $6.25 per doz., in line with recent yarn reductions.

OPTIMISM PSYCHOLOGICAL

The growing optimism of the hosiery mills is based more on psychological elements than on increased sales. The general feeling of the trade is that the second half of 1930 will mark a decided improvement over the first half.

Full-fashioned hosiery made to retail at $1 has improved. Buying is still slow, but buyers are talking more confidently about their expectations at the retail end. The store stocks are low and it is believed that fall colors will register a sharp pick-up soon. Certain mills have been shipping these colors in quantity, for some weeks.

◆Gray Goods Prices Uncertain

COTTON goods trading is quiet and spotty. Business has held up well in certain centers, but the majority of houses in the market note a slackening of sales. Since the Government crop report, gray goods prices are somewhat uncertain. The majority of sellers continue to quote unchanged figures; some stating that these are firm and others admitting that would consider trading on fair-size bids. There were confirmed reports of sales of 38½-in., 64x60 print cloths at 5c.; with most sellers quoting 5⅛c.

Inquiries were rather numerous during the fore part of the week, but these were generally "feelers" and did not result in business. Customers were sounding out the market and to all outside appearances it responded with a firm tone.

The crop report was a surprise to most and the subsequent decline of the staple has not helped the goods market. Even though present prices discount materially lower cotton, buyers are not relaxing the bear pressure.

At one time the percale status looked rather dubious. Soon after the 14½c. price was made, a large wholesale house announced a price of 14¼c. The converters announced that they would hold their quotations and not meet this ¼c. differential, at least for the time being. A few converters have noticed a revival of interest in the 80-square goods.

◆Continued Quiet in Wool Goods

ALTHOUGH there was some activity in summer clothing fabrics during the week, the men's wear market has not yet emerged from the dull period. Orders for fall goods are few and far between. Flannels and tropical worsteds moved in fair volume in several houses and there were reports of sales of tweeds and sport suiting materials.

Demand took a turn for the better at the women's wear end. Retailers have evidently shown enough preliminary interest to encourage garment manufacturers. They in turn have been placing business in order to take care of orders on hand and also to round out garment stocks.

Along with the crepe and tricot broadcloths, suedes and other soft faced cloths have been in general demand. Rayon decorated worsteds are stated to be important in dress goods lines.

Buying seems to be confined to a few outstanding houses and reports of improvement cannot be made about the general market.

Men's overcoatings were more prominent last week and considerably better sales are expected by the end of the month. Manufacturers have started cutting and many orders that have been hanging fire for months have been definitely confirmed. There has been a similar experience in the topcoating range as well as the heavier weights.

◆Broadsilks Are More Active

BROADSILKS continue to improve. Piece goods buyers are still placing early fall business, and cutters are showing more interest. The pick-up is slow, and sales are behind this time last year on fall fabrics, but mill men are encouraged by the tone of the market. The chief remaining complaint is the emphasis on price; both cutters and retailers are putting up a strong fight to secure concessions, and quality has little appeal at present, the weavers report.

Cantons become increasingly important each day. One exception to the preference for low-price fabrics, is the interest manifest in flat crepes. Manufacturers of medium and higher-priced garments are placing fair-sized spot orders for the flat crepes and current inquiries indicate that this demand will be greater next week.

There is a light but steady call for sheers; flat chiffons are the outstanding line. Transparent velvet is becoming a big unit among manufacturers of popular-price dresses and suits. Buying is active, but all orders are small. Weavers are getting most of this business from the manufacturers of $6.00 to $10.75 dresses.

QUOTATIONS

at close of business, Aug. 13, 1930
Prices cover average qualities unless otherwise stated

Cotton Goods

	Aug. 13	Aug. 6	Aug. 14 1929
PRINT CLOTHS			
27 -in., 64x60, 7.60	4c.	4⅛c.	5⅛c.
38½-in., 64x60, 5.35	5-5⅛c.	5⅛-5⅜c.	7½c.
39 -in., 68x72, 4.75	5⅛c.	6 -6⅛c.	8⅛c.
39 -in., 72x76, 4.25	6⅜-6⅝c.	7 -7⅛c.	9½c.
39 -in., 80x80, 4.00	7⅛c.	7⅜-7⅝c.	10⅛-10¼c.
BROWN SHEETING			
36-in., 56x60, 4.00	6⅜-6⅝c.	6⅜-6⅝c.	8⅛c.
36-in., 48x48, 3.00	7⅛c.	7⅛-8 c.	10⅛c.
37-in., 48x48, 4.00	6c.	6 -6⅛c.	8⅛c.
PAJAMA CHECKS			
36½-in., 72x80, 4.70	6⅜-6½c.	6⅜-6½c.	9 c.
36½-in., 64x60, 5.75	5½c.	5½c.	7⅛c.
MISCELLANEOUS			
Drills, 37-in., 3 yd.	8½c.	8½c.	10⅜c
Denims, 2.20	12⅛c.	12½c.	17c.
Tickings, 8 oz.	17½-17⅞c.	17½-17⅞c.	22-23½c.
Standard prints	8 c.	8 c.	9 c.
Eastern staple ginghams, 27-in.	10c.	10c.	10½c.

Cotton Waste

Peeler comber	10—10½
Peeler strips	9 —9½
Sak. comber	9½—10
Choice willowed fly	4½— 5½
Choice willowed picker	3 — 4½
Sak. strips	11 — 12
Linters (mill run)	3 — 3½
White spooler (single)	8 — 8½

Cotton Yarn

(Carded yarn quotations are nominal)

CARDED (Average Quality)

Double Carded 2c.–4c. higher, according to quality

SINGLE SKEINS OR TUBES (Warp Twist)

4s to 8s	$0.21	20s	$0.23½-0.24
10s	.21½-.22	24s	-.26½
12s	.22 -.22½	26s	-.27½
14s	.22½-.23	30s	.29 -.29½
16s	.23 -.23½	40s ex. qual.	.41 -.42

TWO-PLY SKEINS AND TUBES

8s-2	$0.21½-.22	26s-2	$0.27½-.28
10s-2	.22 -.22½	30s-2	.28½-.29
12s-2	.22½-.23	36s-2	.34½-.35½
14s-2	.23 -.23½	40s-2	.36½-.37½
16s-2	-.24	40s-2 hi blk	.40½-.41½
20s-2	.23½- 24	50s-2	.45½-.46½
24s-2	.26 -.27	60s-2	.53½-.54½

SINGLE WARP

10s	$0.22 -.22½	24s	$0.26 -.26½
12s	.22 -.22½	26s	.27 -.27½
14s	.22½-.23	30s	.28 -.28½
16s	-.23	40s ex. qual.	-.42
20s	.23½-.24		

TWO-PLY WARPS

8s-2	$0.22	24s-2	$0.27
10s-2	-.22½	26s-2	-.28
12s-2	-.23	30s-2	.29 -.29½
14s-2	.23 -.23½	40s-2 ordin.	.37 -.38
16s-2	-.23½	50s-2	-.47
20s-2	.23½-.24	60s-2	-.55

8s-3 and 4-ply skeins and tubes; tinged, 19-20; white, 22-23; waste 18-18½

HOSIERY CONES (Frame Spun)

8s	$0.22	22s	$0.26
10s	.22 -.22½	24s	-.27
12s	-.22½	26s	-.28
14s	-.23	30s tying	-.29
16s	-.23½	30s reg	-.30½
18s	-.24	30s ex. qual.	-.33½
20s	.24½-.25	40s	.37½ -.38

COMBED PEELER—(Average Quality)

TWO-PLY—(Knitting Twist) Cones

20s-2	$0.40 -.42	60s-2	$0.60
30s-2	.45 -.45½	70s-2	.70
36s-2	.46 -.47	80s-2	.81 - .82
40s-2	.47 -.48	90s-2	-1.00
50s-2	.52 -.53	100s-2	1.20 -1.25

WARPS, SKEINS AND CONES

TWO-PLY—(Warp Twist)

20s-2	$0.41 -.42	60s-2	$0.60 - .61
30s-2	.45 -.46	70s-2	.70 - .71
36s-2	.46 -.47	80s-2	- .82
40s-2	.47 -.48	90s-2	1.05 1.10
50s-2	.53 -.54	100s-2	1.20 -1.25

SINGLES

12s	$0.34	30s	$0.43½-.44
14s	-.34½	38s	.46 -.46½
16s	-.35	40s	.47½-.48
18s	-.35½	50s	-.52
20s	-.36½	60s	.59 -.60
24s	-.39	70s	.69 -.70
28s	-.42	80s	.80 -.81

MERCERIZED CONES—(Combed, Ungassed)

26s-2	$0.55 -.56	90s-2	$1.35 -1.37
30s-2	.57 -.58	100s-2	1.65 -1.67
36s-2	.60 -.61	120s-2	2.05 -2.08
40s-2	.63 -.64	30s	- .75
45s-2	.65 -.67	40s	- .80
50s-2	.67 -.69	50s	- .85
60s-2	.76 -.78	60s	- .90
70s-2	.88 - .90	70s	-1.05
80s-2	1.00 -1.05	80s	-1.25

Cotton Prices and Statistics

COTTON STATISTICAL DATA

(Fluctuations of Futures)

	Closed Aug. 7	For Week—High	For Week—Low	Closed Aug. 13	Net Change
August	12.90	12.90	11.90	11.90	—1.00
September	13.04	13.04	12.04	12.04	—1.00
October	13.20	13.42	12.18	12.18	—1.02
November	13.27	13.27	12.25	12.25	—1.02
December	13.37	13.56	12.31	12.31	—1.06
January	13.41	13.54	12.38	12.38	—1.03
February	13.32	13.32	12.28	12.28	—1.04
March	13.42	13.60	12.36	12.38	—1.04
April	13.49	13.49	12.46	12.46	—1.03
May	13.57	13.62	12.52	12.55	—1.02
June	13.61	13.61	12.59	12.59	—1.02
July	13.66	13.82	12.64	12.64	—1.02

SPOT FLUCTUATIONS FOR WEEK

(Middling)

	New York	New Orleans	Liverpool
Friday, Aug. 8	12.55	12.11	7.54
Saturday, Aug. 9	12.60	12.17	7.25
Monday, Aug. 11	12.55	12.11	7.17
Tuesday, Aug. 12	12.35	11.92	7.18
Wednesday, Aug. 13	12.20	11.74	7.15
Thursday, Aug. 14	12.05	11.56	7.00

SPOT FLUCTUATIONS AND STOCKS

Markets	Aug. 6	Aug. 13	Sales	Stocks This Week	Stocks Last Year
Galveston	12.60	11.85	1,774	181,139	70,878
New Orleans	12.60	11.74	3,134	305,860	42,870
Mobile	12.20	11.15	.....	8,112	8,943
Savannah	12.13	11.18	60	104,127	20,620
Norfolk	12.94	12.06	473	46,817	24,592
New York	12.95	12.20	.....	238,607	130,587
Augusta	12.50	11.69	927	47,208	30,352
Memphis	12.00	11.20	1,505	140,645	40,718
St. Louis	11.75	11.25	.....	6,119	7,637
Houston	12.55	11.85	31,786	513,127	131,229
Dallas	12.05	11.20	21,683	10,472	1,984

BASIS MIDDLING

	Saturday, August 9	Saturday, August 2
10 markets average	11.90	12.15
Memphis	11.60	11.90

PREMIUM STAPLES

First Sales from Factors Tables at Memphis

Grade Strict Middling	Prices Nominal
1⅛-in	14.30—14.60c.
1 3/16-in	15.60—15.85c.
1¼-in	20.50—20.85c.

CURRENT SALES

	For Week	Prev. Week	Week Before
Memphis total	2,217	1,888	2,903
F.o.b. included in total	2,037	1,868	2,653
10 markets	32,851	17,185	11,030

MEMPHIS RECEIPTS, SHIPMENTS, ETC.

	For Week	Last Year	Year Before
Net receipts	852	503	627
Gross receipts	5,204	5,115	5,233
Total since Aug. 1, net	971	692	969
Shipments	10,991	7,008	9,337
Total since Aug. 1	11,877	13,367	17,560
Total stock	143,250	42,010	71,465
Decrease for week	5,707	1,893	4,104
Unsold stock in hands of Memphis factors	27,185	4,173	.....
Decrease for week	89	384	.....

AVERAGE PRICE AUG.-SEPT. SHIPMENT HARD WESTERN COTTON

	F. o. b. New England Middling	St. Middling
1 1/16 in	15 -15½c.	15½-15¾c.
1⅛ in	16 -16½c.	16½-17 c.
1 3/16 in	18 -18½c.	19 -19½c.
1¼ in	21½-23 c.	23½-25 c.

Basis on New York, New December, 12.11

DIFFERENCES ON AND OFF MIDDLING

WHITE GRADES

	Dallas	Memphis	Montgomery	Augusta	Average
M. F	1.05†	1.00†	1.00†	1.00†	1.00†
S. G. M	.90†	.85†	.90†	.88†	.86†
G. M	.75†	.75†	.75†	.75†	.72†
S. M	.50†	.50†	.50†	.50†	.50†
S. L. M	.75*	.65*	.65*	.75*	.71*
L. M	1.75*	1.75*	1.50*	2.00*	1.73*
S. G. O.**	3.00*	2.75*	2.50*	3.25*	2.88*
G. O	3.00*	2.75*	2.50*	3.25*	3.93*

YELLOW TINGED

G. M	.50*	.25*	.50*	.50*	.55*
S. M	1.00*	.75*	1.00*	1.00*	1.05*
M.**	1.75*	1.25*	1.50*	1.50*	1.65*
S. L. M	2.50*	1.75*	2.25*	2.25*	2.32*
L. M.**	3.50*	2.25*	3.00*	3.00*	3.22*

YELLOW STAINED

G. M	1.50*	1.75*	1.50*	1.50*	1.55*
S. M.**	2.25*	2.50*	2.50*	2.50*	2.40*
M.**	3.00*	3.00*	3.50*	3.50*	3.20

BLUE STAINED

M. G.**	1.75*	1.50*	1.75*	1.75*	1.70*
S. M.**	2.25*	2.25*	2.75*	2.75*	2.45*
M.**	3.00*	2.75*	3.75*	3.75*	3.23*

**Grades not deliverable on contract. †On Middling
*Off Middling.

EGYPTIAN COTTON

Alexandria Exchange, Aug. 13		Change
November Sak	22.25	—0.44
October uppers	14.21	—1.19

AUG.-SEPT. SHIPMENT c. i. f. BOSTON

(Tariff not included)	(Prices Nominal)
Fully good fair Sak	27.75
Fully good fair to good Uppers	18.00

(By Anderson, Clayton & Co.)

Wool

OHIO, PENNSYLVANIA AND WEST VIRGINIA
(IN GREASE)

Fine delne..	$0.30 –$0.31	¾ blood.....	$0.29 –$0.30
Fine clthg..	.23 – .24	½ blood.....	.30 – .31
¼ blood.....	.29 – .30		

TEXAS AND CALIFORNIA
(CLEAN BASIS)

Texas, 12 months	$0.73 –$0.75
California, Northern	.65 – .68

PULLED—EASTERN (CLEAN BASIS)

AA.....	$0.77 –$0.80	B-Super...	$0.58 –$0.62
A-Super....	.65 – .68	C-Super...	.55 – .58

MONTANA, IDAHO AND WYOMING
(CLEAN BASIS)

Staple fine	$0.75 –$0.78
Staple ¾ bld.	.70 – .73
Fine and fine medium	.70 – .72
¾ blood	.60 – .63
½ blood	.57 – .60

MOHAIR—DOMESTIC

Best Carding	$0.38 –$0.40
Best combing	.53 – .55

MOHAIR FOREIGN (IN BOND)

Turkey fair, average	$0.28 –$0.30
Cape firsts	.28 – .30

FOREIGN CLOTHING AND COMBING
(CLEAN BASIS IN BOND)

Australia:	
70s	$0.65 –$0.70
64s	.53 – .55
58s-60s	.46 – .48

(IN GREASE)

Montevideo:	
58-60s	$0.25 –$0.26
56s	.25 – .26
50s	.23 – .24
Buenos Aires:	
4s, 40-44s	$0.22 –$0.23
5s, 36-40s	.20 – .21

FOREIGN CARPET (GREASE BASIS IN BOND)
SCOURED

Aleppo	$0.30 –$0.31
China: Combing No. 1	.16 – .17
China Filling Fleece	.14 – .15
Szechuen ass't	.15
Cordova	.15 – .16
Scotch black face	.20 – .21
East India: Kandahar	.23 – .24
Vican'r	.27 – .28
Joria	.27 – .29

Worsted Yarns

ENGLISH SYSTEM WEAVING

2-20s, 36s	$0.92½–$0.95
2-24s, 40s	1.02½– 1.05
2-26s, 44s	1.10 – 1.12½
2-28s, 46s	1.15 – 1.17½
2-30s, 48s	1.20 – 1.22½
2-32s, 50s	1.25 – 1.27½

(Single yarns 5c. less than above)

2-36s, 58s	$1.35 –$1.40
2-40s, 60s	1.45 – 1.47½
2-40s, 64s	1.50 – 1.52½
2-50s, 66s	1.70 – 1.75
2-60s, 70s	2.15 – 2.20

ENGLISH SYSTEM KNITTING

2-20s, 44s in oil	$0.95
2-20s, 48s in oil	1.02½
2-20s, 50s in oil	$1.02½– 1.05
2-20s, 56s in oil	1.12½– 1.15
2-20s, 60s in oil	1.30 – 1.32½
2-20s, 64s in oil	1.37½ 1.40
1-15s, 46s dyed	1.15 – 1.17½
1-15s, 48s dyed	1.17½– 1.20
1-15s, 50s dyed	1.22½

(Oil yarns 17½c. less)

FRENCH SYSTEM

1-20s, 58s	$1.20 –$1.22½
1-20s, 60s	1.25 – 1.27½
1-18s, 64s, Dyed	1.52½– 1.55
1-26s, 64s	1.27½– 1.30
1-30s, 60s, Warp	1.42½– 1.45
1-30s, 64s, Warp	1.47½– 1.52½
2-30s, 64s, Fancy mixes	1.70 – 1.72½
2-40s, 64s, Zephyrs	1.62½– 1.65
1-50s, 66s	1.62½– 1.65
2-50s, 66s	1.80 – 1.82½
1-60s, 70s	1.95 – 2.00
2-60s, 70s	2.10 – 2.15

FRENCH SPUN MERINO WHITE

1-30s, 50-50-58s on cops	$1.05 –$1.07½
1-40s, 50-50-60s on cops	1.20 – 1.25
1-40s, 50-50-64s on cops	1.22½– 1.25
1-40s, 50-50-64s Australian cops	1.30 – 1.35

Underwear mixes, 3c. additional.
Solid color, 35c. additional.

◆

Tops and Noils

TOPS—BOSTON

Fine (64-66s)	$0.97 –$0.99
Half-blood (60-62s)	.88 – .92
High ¾ blood (58s)	.83 – 85
Aver. ¾ blood (56s)	.80 – .83
Low ¾ blood	.73 – .78
High ½ blood (50s)	.70 – .72
46s S. A. and N. Z.	.65 – .66
44s S. A and N. Z.	.62 – .65
40s S. A and N. Z.	.58 – .60

TOPS—BRADFORD, ENG. (AUG. 7)

Fine (70s)	31½d	¾ bld. (56s)	20 d
Fine (64s)	28 d	½ bld. (50s)	17 d
¾ bld. (60s)	26 d	Cross-bred (46s)	15½d
¾ bld. low (58s)	22½d		

NOILS—BOSTON

Fine	$0.57–$0.60	High ½ bld..	$0.44–$0.47
Half-bld.	.53– .55	Low noils...	.40– .42
Aver. ¾ bld..	.45– .48	Medium colored...	.40– .42
Fine colored	.46– .48		

Wool Substitutes

WOOL WASTE

Lap, fine white	$0.80 –$0.83
Lap, fine colored	.58 – .60
Hard ends, fine white	.60 – .63
Hard ends, ½ blood white	.40 – .43
Hard ends, fine colored	.28 – .30
Hard ends, medium colored	.23 – .25
Card, fine White	.30 – .33
Burr, fine Carbonizing	.38 – .40

OLD WOOLEN RAGS (GRADED FOR MFRS.)

Merinos, Coarse Light	$0.06 –$0.07
Merinos, Fine Dark	.04½– .05
Merinos, Fine Light	.14 – .14½
Serges, Blue	.07½– .08
Serges, Black	.07 – .08
Serges, Red	.11 – .11½
Knit, White	.29 – .30
Knit, Red	.15 – .16
Knit, Light Hoods	.14 – .15
Worsted, Light	.05½– .06
Worsted, Blue	.07½– .08
Worsted, Black	.07½– .08

Silk Yarns

THROWN SILK (60 day basis)

	Nominal
Japan organzine, 2 thd. grand XX in skeins	$4.40
Japan organzine, 2 thd. sp. crack in skeins	4.25
Japan crepe, 3 thd. grand XX in bobbins	4.60
Japan crepe, 3 thd. sp. crack on bobbins	4.30
Japan crepe, 4 thd. crack on bobbins	4.05
Canton crepe, 3 & 4 thd. ns. 14/16 on bobbins	2.70
Tussah tram, 2 end on cops	2.00
Hosiery tram, 3 thd. Japan XXX	4.95
Hosiery tram, 4 thd. Japan, selec. gd. XX	4.45
Hosiery tram, sp. crack XX	3.70
Hosiery tram, crack XX	3.60
Hosiery tram, XX	3.35

SPUN SILK YARNS—(Terms: net 30)

40/2	$3.65	60/2	$4.00
50/2	3.85	62/1	2.80

Raw Silk

(60 day basis)
Prices Nominal

	13/15 White	20/22 White	20/22 Yellow
Super Grand, 86/88%	$3.75	$3.10	$2.95
Special Grand, 85%	3.55	3.00	2.85
Grand XX, 83%	3.25	2.90	2.75
Special Crack, 81%	3.05	2.80	2.70
Crack XX, 78%	2.90	2.75	2.65
Extra Extra, 73%	2.85	2.70	2.60
Best Extra, 68%	2.75	....	....

Canton filature, new style, 141/6	$2.05
Canton filature, new style, 20/22	2.00
Tussah filature, 8 cocoon	1.70

NATIONAL RAW SILK EXCHANGE

	Close Aug. 6	For the Week High	For the Week Low	Close Aug. 12	Net Chge.
August	2.75	2.81	2.72	2.73	—.02
September	2.77	2.78	2.71	2.75	—.02
October	2.77	2.79	2.72	2.74	—.03
November	2.79	2.80	2.72	2.74	—.05
December	2.77	2.82	2.72	2.74	—.03
January	2.76	2.80	2.72	2.74	—.02
February	2.76	2.83	2.71	2.74	—.02
March	2.76	2.81	2.72	2.74	—.02

Aug. 6 to Aug. 12—Total contracts, 144. Total number of bales, 1,440. Total approximate value, $504,000.

Domestic Rayon

VISCOSE PROCESS

Denier	Filament	First	Second
50	14	$2.15	$1.95
75	18	1.60	1.50
75	30	1.70	1.60
100	18	1.25	1.15
100	40	1.30	1.20
125	36–50	1.20	1.10
150	24–30	.95	.90
150	36–40	1.00	.95
150	60	1.15	1.10
150	75 90	1.20	1.15
170	24–27	.95	.90
170	60	1.15	1.10
200	30	.90	.85
200	35–40	.90	.85
200	75–80	1.10	1.05
300	44–60	.78	.75
450	54–60	.78	.75
600	72–96	.78	. 75
900	100–144	.78	. 75

NITRO-CELLULOSE PROCESS

Denier	First Qual.	Second Qual.	Denier	First Qual.	Second Qual.
75	1.60	1.50	150	.95	.90
100	1.25	1.15	175	.95	.90
125	$1.20	$1.10			

CUPRAMMONIUM PROCESS

Denier	Filament	Price	Denier	Filament	Price
15	25	$3.10	40	30	$2.40
25	25	2.85	52	30	2.20
30	25	2.60			

(Due to diversified offerings prices for higher denier are not listed here.)

ACETATE PROCESS

Denier	Price	Denier	Price
45	$2.75	120	$1.90
55	2.55	150	1.60–1.85
75	2.25–2.70	200	1.55
100	2.00–2.45	300	1.50

Rayon Waste

Prices Nominal

Open bleached waste	–$0.16
Open unbleached waste	–.15
Bleached thread waste (mfs.)	–.11
Bleached thread waste (misc.)	–.10
Colored thread waste	.06–.08
Colored clips	–.06

CONVERTED RAYON WASTE

Bleached tops	–$0.47½
Unbleached tops	–.42½
Bleached noils	–.15
Bleached garnets	–.13
Unbleached garnets	–.13
Colored garnets	–.10

Silk Waste

Kibizzo Kikai Grand XX	$0 85
Kibizzo Kikai Triple Extra	92
Frison Grand Double	.90
Pierced Cocoons	1.12

TRIETHANOLAMINE

—A VALUABLE INGREDIENT FOR HIGH-GRADE DRY-CLEANING SOAPS

◐ **TRIETHANOLAMINE unites readily with fatty acids to form soaps. These soaps, as constituents of dry-cleaning compounds, impart the following important advantages:**

1 — Make the soaps completely soluble in gasoline.

2 — Leave the garment free from undesirable residues by preventing precipitation of soap.

3 — Prevent clogging of filters.

4 — Permit a desirable percentage of moisture to be carried into the dry-cleaning solvent.

5 — Prevent rancidity.

6 — Tend to brighten the color of fabrics and to overcome fading.

Triethanolamine is a valuable friend of the dry-cleaning industry. Complete information on Triethanolamine and its uses will be sent on request to anyone professionally interested. Specific questions as to this or any other of the many interesting applications of Triethanolamine will receive prompt attention. Mail coupon.

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BUTANE	PROPANE
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Gentlemen: Kindly send me complete information about TRIETHANOLAMINE as used in the preparation of dry-cleaning soaps; also data about _____, one of your other products.

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Southern Mill Securities

(A. M. Law & Co., Spartanburg)

	Bid	Asked
Abbeville Cotton Mills	..	50
Anderson Cotton Mills	69	73
Arcade Cotton Mills	..	60
Arcadia Mills	..	225
Arcadia Mills, pfd	96	100
Arkwright Mills	..	50
Augusta Factory, Ga	..	20
Avondale Mills, Ala	750	1000
Beaumont Mfg. Co	250	300
Beaumont Mfg. Co. 7% pfd	100	102
Belton Mills	..	25
Belton Mills, pfd	..	75
Bibb Mfg. Co	98	101
Bibb Mfg. Co. 6% pfd	99	102
Brandon Corp., A	..	45
Brandon Corp., B	..	7
Brandon Corp., pfd	..	84
Calhoun Mills	88	95
Chadwick-Hoskins Co. (par, $25)	9	12
Chesnee Mills	..	60
Chiquola Mfg. Co	250	260
Chiquola Mfg. Co., pfd	88	92
Clifton Mfg. Co	96	99
Clinton Cotton Mills	225	250
Columbus Mfg. Co., Ga	80	90
Cowpens Mills	..	30
D. E. Converse Co	90	95
Dallas Mfg. Co., Ala	..	65
Darlington Mfg. Co	40	50
Drayton Mills	118	..
Dunean Mills	120	125
Dunean Mills, pfd	97	100
Eagle & Phenix Mills, Ga	..	65
Easley Cotton Mills, pfd	..	47
Enterprise Mfg. Co., Ga	..	100
Fairforest Finishing Co., serial notes	98	100
Florence Mills	45	50
Florence Mills, pfd	97	100
Gaffney Mfg. Co	..	25
Gainesville Cotton Mills, Ga	145	155
Glenwood Mills	85	95
Gluck Mills	65	75
Gossett Mills	..	63
Graniteville Mfg. Co	..	100
Greenwood Cotton Mills	400	..
Grendel Mills, pfd. (par, $50)	45	48
Hamrick Mills	..	95
Hartsville Cotton Mills	130	140
Hunter Mfg. & Com. Co., pfd	83	85
Industrial Cotton Mills Co., pfd	..	30
Inman Mills	115	125
Inman Mills, pfd	100	..
Judson Mills, A, pfd	97	99
Judson Mills, B, pfd	95	98
King, John P. Mfg. Co., Ga	80	90
Lancaster Cotton Mills	250	270
Laurens Cotton Mills	..	120
Limestone Cotton Mills	..	100
Lydia Cotton Mills, serial notes	99	101
Marion Mfg. Co., N. C.	..	113
Marlboro Mills	..	15
Mills Mill, pfd	95	99
Mollohon Mfg. Co., pfd	97	100
Monarch Mills	105	115
Musgrove Cotton Mills	30	35
Newberry Cotton Mills	100	105
Ninety-Six Mills	400	..
Norris Cotton Mills	..	40
Orr Cotton Mills	..	60
Orr Cotton Mills, pfd	..	83
Pacolet Mfg. Co	..	140
Pacolet Mfg. Co., pfd	95	100
Panola Cotton Mills, Class A, pfd. (par, $60)	55	60
Pickens Cotton Mills	105	115
Piedmont Mfg. Co	96	100
Piedmont Print Works (no par)	15	20
Piedmont Print Works, pfd	60	70
Poe, F. W. Mfg. Co	24	29
Riverside & Dan River Mills	9½	11
Riverside & Dan River Mills, 6% pfd	73	78
Saxon Mills	..	65
Sibley Mfg. Co., Ga	50	60
Southern Bleachery	16	20
Southern Bleachery, Pfd	80	85
Southern Bleachery, serial notes	95	100
Southern Franklin Process	19	22
Southern Franklin Process, pfd	98	101
Southern Worsted Corp., pfd	88	92
Spartan Mills	..	140
Spencer Corp., serial notes	98	100
Union-Buffalo Mills	..	45
Union-Buffalo Mills, 1st pfd	83	87
Union-Buffalo Mills, 2nd pfd	43	46
Victor-Monaghan Co	67	70
Victor-Monaghan Co., pfd	112	117
Wallace Mfg. Co	..	105
Ware Shoals Mfg. Co	125	140
Whitney Mfg. Co	..	40
Woodside Cotton Mills Co	..	40
Woodside Cotton Mills Co., pfd	..	42
Yarns Corp. of America, gold bonds	99	101

Textiles on N. Y. Exchanges

The following shows the movements of the leading textile stocks listed on the New York Stock Exchange and Curb for the weeking ending Aug. 13:

	High	Low	Last Sale	Net Change
Adams Millis	26½	26	26	— 1½
American Woolen	10	9⅞	9⅞	— ⅛
American Woolen, pfd.	26½	25½	25½	— 3
*Assoc. Rayon. pfd	48	47	47	— ⅛
Belding-Hemingway	5	3⅞	4⅛	+ ⅛
Cannon Mills	22⅛	22⅛	22⅛	— ⅛
Century Ribbon	5	5	5	+ ⅛
Collins & Aikman	22⅛	19½	20	— 2
Consolidated Textile	⅛	⅛	⅛	....
*Courtaulds, Ltd	10	10	10	....
*Fabrics Finishing	2⅛	2⅛	2⅛	— ⅛
Gotham Hosiery	10½	9	9	— 2
Industrial Rayon	88	82	82	—12
Kayser, Julius	24½	23½	23½	— ⅛
Kendall, pfd	81	75	81	— ⅛
Mallinson	9½	7	7	— 1⅛
*May Hosiery, pfd	23½	23½	23½	— 1
*Mock Judson	11	11	11	— 1
Mohawk Carpet	18	16⅞	16⅞	— ⅛
Munsingwear	43⅛	36	36	— 9
Pacific Mills	20⅞	20⅛	20⅛	— 2
*Pepperell	85	85	85	— ½
Phoenix Hosiery	14	14	14	— 1
Real Silk Hosiery	42	38½	39½	— 3
*Tubize Chat. B	7½	7	7	— ⅛
United Piece Dye Wks.	25⅛	24	25⅛	— ⅛

*Listed on Curb.

Fall River Mill Stocks

(G. M. Haffards & Co., Fall River)

	Bid	Asked
Algonquin Printing Co	310	330
American Linen Co	..	..
Barnard Mfg. Co	..	10
Berkshire (com.)	..	12
Berkshire (pfd.)	..	60
Bourne Mills	5	10
Border City Mfg. Co	..	5
Charlton Mills	..	55
Cornell Mills	..	10
Davol Mills	..	5
Davis Mills	5	10
Flint Mills	18	..
King Philip Mills	5	..
Laurel Lake Mills (com.)	..	8
Lincoln Mfg. Co	..	10
Luther Mfg. Co	82½	..
Merchants Mfg. Co	27	..
Narragansett Mills	..	10
Parker Mills, com	..	..
Pilgrim Mills	..	60
Richard Borden Mfg. Co	2	..
Sagamore Mfg. Co	..	60
Shove Mills	4	8
Stafford Mills	..	1
Stevens Mfg. Co	..	32
Union Cotton Mfg. Co	24	..
Wampanoag Mills	..	..
Weetamoe Mills	..	1

N. Carolina Mill Stocks

(R. S. Dickson & Co., Charlotte, N. C.)

	Bid	Ask
Acme Spinning Co	60	75
American Yarn and Processing Co	..	71
Chadwick-Hoskins Co. (Par. $25)	7	11
Chadwick-Hoskins Co., 8%, Pfd	96	99
China Grove Cotton Mills	95	100
Climax Spinning Co	58	66
Clover Mills	..	25
Converse D. E. Co	88	95
Crescent Spinning Co	53	62
Dixon Mills	90	100
Durham Hosiery, 6%, Pfd	30	35
Eagle Yarn Mills	57	65
Efird Mfg. Co	70	81
Erwin Cotton Mills	..	120
Erwin Cotton Mills Co., 6%, Pfd	90	97
Flint Mfg. Co	..	81
Flint Mfg. Co., 7%, Pfd	93	98
Globe Yarn Mills (N.C.)	..	20
Gray Mfg. Co	..	81
Hanes, P. H. Knitting Co	8	10½
Hanes, P. H. Knitting Co., 7%, Pfd.	..	99
Henrietta Mills, 7%, Pfd	42	55
Imperial Yarn Mills	..	60
Linford Mills	59	75
Locke Cotton Mills Co	40	55
Majestic Mfg. Co	100	135
Mansfield Mills	..	65
Mooresville Cotton Mills	4	7
Mooresville Cotton Mills, 7%, Prior Pfd	..	81
Myers Mills	..	71
Myrtle Mills	..	51
National Yarn Mill	50	60
Perfection Spinning Co	55	66
Ranlo Mfg. Co	..	115
Ranlo Mfg. Co., 7%, Pfd	..	98
Roanoke Mills	60	..
Roanoke Mills, 1st Pfd., 7½%	87	95
Roanoke Mills, 2nd Pfd., 8%	88	96
Rosemary Mfg. Co., Pfd., 7½%	96	..
Rowan Cotton Mills Co	68	80
Seminole Cotton Mills Co	..	75
Sterling Spinning Co	60	75
Stowe Spinning Co	54	66
Victory Yarn Mills Co	35	50
Ware Shoals Mfg. Co	120	136
Ware Shoals Mfg. Co., 7%, Pfd	92	98
Winget Yarn Mills Co	38	50
Wiscassett Mills Co	155	180

New England Textile Stocks

Quotations at "Public Sale" are based on last sales at Boston Public Auctions and Boston Stock Exchange. Bid and Asked prices are latest quotations of dealers.

	Public Sale	Bid	Asked
Am. Mfg. pfd	68	60	64
Amoskeag	11½	..	..
Arlington	23½	23	25
Associated Textile	36½	34	37
Bates	63	68	75
Berkshire Associates, com	12	12	14
Berkshire Associates, pfd	59	60	65
Bigelow-Sanford, com	58	..	..
Boott Mills	120½	..	114
Edwards	80½	72	78
Esmond, pfd	102	100	102
Farr Alpaca	68½	67	69
Hamilton Woolen	40	39	41
Hill	18	14	18
Indian Orchard	20½	20	25
Ludlow	138	136	140
Merrimack, com	50½	45	53
Nashua, com	32½	25	27
Nashua, pfd	68	67	71
Naumkeag	86	80	85
Newmarket	25½	15	20
Otis	49½	41	45
Pacific	21	..	..
Pepperell	85½	82	85
Plymouth Cordage	82	70	72
York	8½	7	9

New Bedford Mill Stocks

(Sanford & Kelley, New Bedford)

	Bid	Asked
Acushnet Mill	14½	15½
Beacon Mfg., con	125	..
Beacon Mfg., pfd	85	87
Booth Mfg. Co., com	7	9
Booth Mfg. Co., pfd	30	..
Bristol Mfg. Co	27	29
City Mfg. Co	38	41
Dartmouth Mfg. Co., com	48	52
Dartmouth Mfg. Co., pfd	86	..
Gosnold Mill., com	..	16½
Gosnold Mill, pfd	..	43
Grinnell Mfg. Co	21	23
Hathaway Mfg. Co	35	37
Holmes Mfg. Co., com	1	3
Holmes Mfg. Co., pfd	8	..
Kilburn Mill	36	38
Nashawena Mills	20	22
N.B. Cotton Mills, pfd	10	12½
Neild Mill	31	35
Nonquitt Mills	4½	5½
Pierce Mill	115	120
Potomska Mills	29	31
Quissett Mills, com	50	53
Soule Mill	50*	..
Taber Mill	9½	10¾
Wamsutta Mills	13½	15
Whitman Mills	1	2½
Gosnold Mill Notes	..	90
Whitman Mills 6% Notes	38	..

* Ex-dividend.

Textile Calendar

Chicago Yarn Men's Circle, Annual Golf Tournament, Nippersink Lodge, Genoa City, Wis., Aug. 28, 1930.

Worsted Yarn Spinners' Annual Outing, Manufacturers' Country Club, Oreland, Pa., Sept. 24, 1930.

National Safety Congress, Textile Section, Annual Meeting, William Penn Hotel, Pittsburgh, Pa., Sept. 30-Oct. 1, 1930.

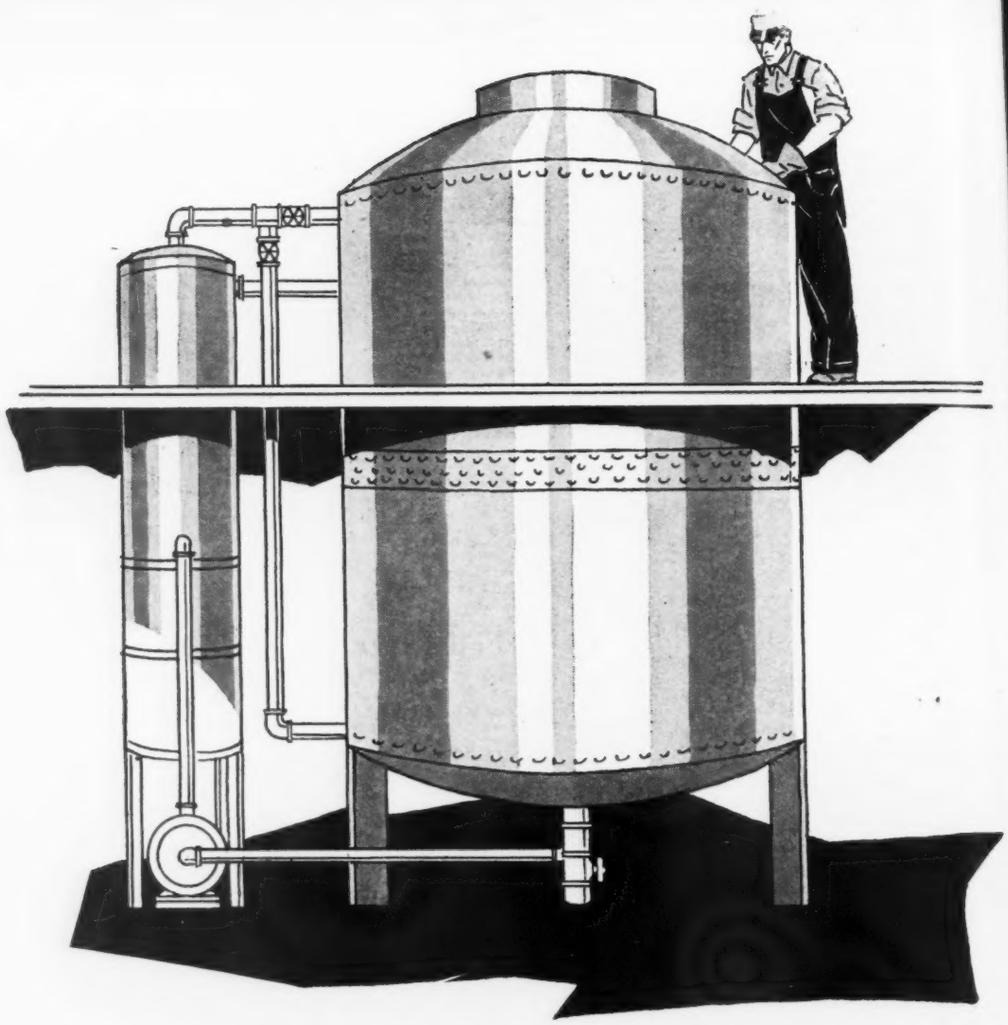
National Association of Cotton Manufacturers, Annual Meeting, Poland Springs, Me., Oct. 10-11, 1930.

Ninth Southern Textile Exposition, Textile Hall, Greenville, S. C., Oct. 20-25, 1930.

Textile Division, A.S.M.E., National Meeting, Poinsett Hotel, Greenville, S. C., Oct. 22, 1930.

Southern Textile Association, Semi-Annual Meeting, Poinsett Hotel, Greenville, S. C., Oct. 23, 1930.

United States Institute for Textile Research, First Annual Meeting, New York City, Nov. 6, 1930.



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THE grey cotton is run into the kier . . . It comes out perfectly bleached.

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PEROXIDES
PERBORATES
SOLOZONE
(130 vol.)

R&H CHEMICALS

The ROESSLER & HASSLACHER CHEMICAL CO.
INCORPORATED
10 EAST 40th STREET, NEW YORK, N. Y.

Male Plumage

(Continued from page 35)

damn forever cotton's chances in polite social circles were entirely dissipated. He insisted that I telegraph for a consignment of the same material to his own tailor, and in the meantime gave to the Associated Press the widely circulated story of the affair which you have doubtless read in your podunk paper.

The repercussions of this incident have been far-reaching. From every sweltering corner of our broad land have come inquiries as to the proper material and cut for the latest formal summer evening wear for men. It is not too much to expect that within a very few years washable cotton dinner coats will come in and go out with straw hats every season, and that the black worsted dinner coat will go into cedar-lined eclipse with the first appearance of hot weather. The sartorial emancipation of mankind is at hand, and the lilies of the field are shaking with jealous apprehension.

Turning a contemplative eye back through the history of dress simply tends to prove that man's present modest garb is due to no deep-seated peculiarity of his mentality, but to a transient complex which is if anything abnormal to his natural proclivities. Why this complex exists today is a debatable question. No doubt the absence of a leisure class has something to do with it; everybody is running around doing something, and everything he does messes up his clothes. Unquestionably dirty subways and dusty automobiles discourage one from wearing clothes that show too easily the effects of dirt, heat and jams (not *jam:* that falls into the juvenile section of this essay, which will appear in a later issue).

At all events, the salient and incontrovertible fact is that due to a variety of reasons, transparent or tenebrous, man is wearing in this year of grace clothes that are preposterously ugly, monotonous, uncomfortable and impractical. To deny either of the first two of these accusations would admit a lack of taste so colossal that no one is likely to do it. The other two are more controversial, and in justice it may be said that some of our present-day garments make some pretense to comfort and utility. Our habits are so firmly fixed, however, that we use no discretion and judgment in availing ourselves of such advantages as they offer. We wear woolen suits in mid-summer, the warmest kind of fabric known. Perhaps we go so far as to wear white or light-colored flannel trousers on a warm day —wool again: cooler perchance in appearance, but actually heavier and hotter than many of the ordinary worsted trousers in our wardrobe. There is no sensible reason why at any occasion other than a funeral black should be the only decorous color, and surely boiled shirts and starched collars are monstrosities for any use or climate.

We may well congratulate ourselves that a new day is at hand. The Sunday Supplements show us photographs of this or that celebrity wearing some gaudy departure from the standardized garb. The beaches and foreign plages are hotbeds of revolutionary foment. Already the stiff collar has been almost universally superseded by its soft counterpart for day wear. Neckties in bright colors are worn with morning coats. Soft shirts are worn with dinner coats. Nothing is any longer sacred.

Well within my memory, back in the days when ladies wore "unmentionables," and packed a bigger kick in their drumsticks than they do in their second joints nowadays, no man dared to wear any but plain white undergarments. To do otherwise was to exhibit symptoms of hopeless degeneracy, and such a one was the sort of fellow we simply did not care to know. Now, God bless you; just enter the men's locker room of any country club and see if you can help getting the impression that you are watching an exceptionally fine display of the Aurora Borealis! After the somber outer shell is laid aside, each of your neighbors steps forth in multi-colored finery that shows how violently within him is working the urge to break through the fetters of his chrysalid state.

World Market for American Bathing Suits

(Continued from page 43)

instances on French system, has become a standard count for bathing-suit trade, there are as many others who believe that garments made from this yarn will not be accepted completely until they have received a thorough test by the public this summer. Then if a large call for this type yarn again is apparent for 1931 garments they will agree that another step in manufacture of knitted swimming-suits has been made by American manufacturers.

The trend is toward development of a higher priced suit that presumably will give the wearer several seasons with the same suit but on the other hand there are manufacturers who believe that production of a lower priced garment, which will not give such long service but will be replaced by the consumer more frequently, is the suit to specialize in to make the largest profit.

A reputation has been built for the knitted worsted suit not only in the United States but throughout the world and unbiased observers are of the opinion that American manufacturers, and spinners supplying this trade with their raw materials, would make a serious mistake if they attempted to cheapen the product to such an extent that wearing quality and comfortability of the suit would be endangered, in order to meet price competition.

Kraemer Not Closed by Strike

Kraemer Hosiery Co., Nazareth, Pa., has at no time closed its plant on account of a strike, as reported, and it is regretted this was erroneously stated in our issue of last week.

James W. Cox, Jr., Joins Augusta Mills

James W. Cox, Jr., has become associated with the Augusta Factory, Enterprise Manufacturing Co. and Sibley Manufacturing Co., as vice-president in charge of operation. After Sept. 1, Mr. Cox will make his headquarters in Augusta, Ga., where these three companies are located.

The business of Cox, Fuller & Mauersberger, consulting textile specialists, in which Mr. Cox has been a partner, will be continued under the same name as heretofore and at the same address, 320 Broadway, New York.

The Buyers' Viewpoint

(Continued from page 34)

of unweighted silks for the fall season. The drop in the valuation of raw silk has been a contributing factor and what influence a rise in the cost will have on the trend is a matter for conjecture.

This and other movements which have started recently have arisen primarily from the realization of the terrific increase in cost of adjustments on returned merchandise. From the mill through each succeeding step in the disposal of the fabric or garment to the ultimate consumer these costs have mounted in many instances to an alarming degree.

The metallic weighting of silk, while it is an important factor in the returned goods problem, is by no means the only one. In fact, many thoughtful students of the situation believe that insufficient construction of fabrics might rate first place in the causes for dissatisfaction.

The majority of complaints on crepe de chine underwear or outerwear usually arise from—

A. Excessive shrinkage in laundering.

B. Slipping of threads at the seams or points of strain.

C. Threads breaking at points of strain.

The following example illustrates the influence which construction plays in the profits of the producing and distributing firms:

Comparison of Two Samples of Crepe de Chine

		Mfr. No. 1	Mfr. No. 2
Cost per Yard		$1.25	$1.25
Count	Warp	156/2 ply	184/2 ply
	Filling	82/3 ply	81/3 ply
Turns per inch	Left	65/70	60/65
	Right	65/70	60/65
Strength (Per Sq.In.)	Warp	41.6	57
	Filling	19.4	26
Denier (Size of thread)	Warp	20/22	20/22
	Filling	13/15	13/15
Weighting	Water soluble	.....	7.99%
	Metallic	45.21%	43.89%
Shrinkage	Warp	7.90%	2.5 %
	Filling	7.90%	3.75%

The shrinkage of fabric from manufacturer No. 1 is not so great as is sometimes found; however it was sufficient to cause so many complaints that the whole shipment of garments was returned by the store to the manufacturer. Is it not more economical to consider first the difficulties which may arise from the fabric in consumer wear, and, in so far as is possible, to construct the cloth to meet these difficulties?

Throwsters Hold Outing at Sciota, Pa.

Many leading figures in the silk throwing industry were among the fifty throwsters who attended the sixth annual joint outing of sections of the Commission Throwsters' Division of the Silk Association of America, Inc., which was held last Saturday at Linden Court, Sciota, Pa. The throwsters left their business cares behind and all that might remind them of business was strictly taboo.

The day was devoted to outdoor sports, including golf and swimming. The star event was a luncheon, served under the trees in the grounds of Linden Court. H. A. Reiling, of H. A. Reiling, Inc., chairman of the Commission Throwsters Division, was the only speaker at that function, and his talk was brief. He announced that business was "off the cards" for the day, and welcomed the members to the outing, inviting them to avail themselves of the various recreational advantages the place afforded. Owing to the heat of the day, only a few used the golf course. Numerous throwsters drove to a nearby lake for a swim after luncheon. The members started home about 5 p.m.

The following firms were represented by one or more at the outing:

Duplan Silk Corp., West Park Sherwood Throwing Co., Haytock Silk Throwing Co., Hess Goldsmith & Co., Read & Lovatt Mfg. Co., H. W. Kimble & Co., Avoca Silk Co., H. A. Reiling, Inc., Steel Export Association, Sauquoit Silk Mfg. Co., Grove Silk Co., Stroudsburg Silk Co., Nanticoke Silk Throwing Co., J. H. Olldorf, Inc., Universal Industrial Corp., Twentieth Century Silk Corp., Tilt Silk Mills, W. R. Goldsborough, Inc., Pen Argyl Silk Co., Vulcan Silk Co., Lipkan Silk Co., Nino Throwing Co., Dun Well Spinning Co., Bethlehem Silk Co., Trayler Silk Co., White Haven Silk Co., Klots Throwing Co. and R. K. Laros Silk Co.

New Glanzstoff Prices

The new prices of domestic yarns of American Glanzstoff Corp. are as follows:

Den. and Fil.	Bleach 1st	Skeins 2d	Unbl. 1st	Cones 2d	Unde-sulph. 1st	Cones 2d
			High Luster			
75/32	1.70	1.60	1.75	1.65	.....	.....
100/40	1.30	1.20	1.35	1.25	1.32½	1.22½
150/32	0.95	0.90	0.98	0.93	0.97	0.92
150/60	1.15	1.10	1.18	1.13	.....	.....
			Soft Luster			
100/40	1.33	1.23	1.38	1.28	1.35½	1.25½
125/42	1.23	1.13	1.28	1.18	1.27	1.17
150/32	.98	.93	1.01	.96	1.00	.95
150/42	1.03	.98	1.06	1.01	1.05	1.00
150/60	1.18	1.13	1.21	1.16	.....	.....
170/32	.98	.93	1.01	.96	.....	.....
200/42	.93	.88	.96	.91	.....	.....

Cone prices are for yarn on two or three pound cones.

"Sanconize," New Yarn Offered by Tubize-Chatillon

A new nitro-cellulose yarn, to be known as "Sanconize," pronounced San-shon-eeze, which will have a degree of luster half way between the present bright Tubize yarn and the dull luster Chardonize, has been announced by the Tubize-Chatillon Corp. The new yarn will be made in a range of 125 to 150 denier and is available for both hosiery and underwear purposes. It is made by a special patented process which the Tubize-Chatillon Corp. also uses for Chardonize yarn. The dullness of the luster of Sanconize is achieved by use of pigment, a method exclusive with this company.

Botany Seeks Opinion of Buyers on Opening Date

In accordance with policy in extending full cooperation to the trade they serve, Botany Worsted Mills are conducting a survey to ascertain just when, in the opinion of representative garment manufacturers, the woolen collections for spring, 1931, should be conducted.

Sometimes the premature introduction of a new fabric line diverts attention from currently popular merchandise; on the other hand introduction of a new line often stimulates new action. Under present conditions it is of the utmost importance that garment manufacturers and textile producers exchange ideas on subjects of mutual interest.

American Enka Corp. Issues New Price List

The new prices of the American Enka Corp. for viscose process rayon yarns, 75 to 300 denier, follow:

Den.	Fil.	Skeins 1st	Skeins 2d
75	18	$1.55	$1.45
100	40	1.25	1.15
150	60	1.12½	1.07½
150	32 and 24	.92½	.87½
200	32	.90	.85
300	42	.78	.75
		Cones	
150	24	.98	.93

Chicago Yarn Men's Golf Scheduled for Aug. 28

The ninth annual golf tournament of the Chicago Yarn Men's Circle will be held Aug. 28 at Nippersink Lodge, Genoa City, Wis. The contestants will arrive at the club Wednesday afternoon for a special dinner. The tournament on Thursday will consist of 27 holes, 9 in the morning and 18 in the afternoon. A large attendance is expected. C. F. Peffer is secretary.

Lipps-Hamil, Inc., Represent Lehigh Valley Silk Mills

The Lehigh Valley Silk Mills, Bethlehem, Pa., silk throwsters, announced this week that the company had been reorganized to permit the specialization of each branch of throwing in separate mills. Lipps-Hamil, Inc., of New York City, have been appointed general sales representatives.

New Turbize-Chatillon Viscose Prices

Following are the new prices announced by Tubize-Chatillon Corp., on its Sunbeam viscose process yarns:

Den.	Fil	Skeins 1st	Skeins 2d	Cones 1st	Cones 2d
100	40	$1.30	$1.20	$1.35	$1.25
150	40	0.95	0.90	0.98	0.93
Inferior					

	Skeins	Cones
150 and heavier	$0.80	$0.83
100 and finer	1.00	...

New Light-Weight Bed Sheets Offered by Pequot

New sheets and pillow cases, known by the trade name of Ivory, are being placed on the market by Pequot Mills of Salem, Mass. The new line meets the demand in some sections for a lighter weight sheet than Pequot, which has a high reputation in the 68x72 class of sheetings.

Ivory is the third in the line of Pequot products. It takes its place with Naumkeag Fine, so-called because it is a much finer type of construction and is essentially a luxury product.

Because of the fact that Ivory sheets and pillow cases are lighter in weight the prices will be lower than Pequot. New boxes have been designed for the Ivory bed linen and these will be available in gift sets of colored hems and solid colors.

Pepperell Offers New Holiday Packing for Sheets

Pepperell Mfg. Co. is about to announce its new line of holiday packaged sheets and pillow cases.

The leader is known as the Pepperell Portfolio. It contains two pillow cases and one sheet, colored hem, in either Pepperell or Lady Pepperell quality. This portfolio is primarily designed to serve as a convenient "writing portfolio" in which stationery may be carried. It may also be used to hide the unattractive telephone book or as a magazine cover.

Pepperell is also offering a beautiful early American chest substantially built and covered with attractive paper. The old fashioned drum head carries a hand finished French Print. This chest is designed to hold one dozen sheets and one dozen pillow cases.

W. G. L. Betsch Honored at Jubilee Luncheon

William G. L. Betsch celebrated the fiftieth anniversary of his connection with William Iselin & Co. by a luncheon given Monday at the Advertising Club, New York City, to members of the Uptown Credit Group of the Textile Industry affiliated with the Silk Association of America, Inc., and guests. Mr. Betsch, who is chairman and one of the founders of the Uptown Credit Group, was presented by the group with a sterling plaque bearing an inscription commemorating the occasion. The presentation was made by Robert S. Berryman, vice-chairman of the group, who congratulated Mr. Betsch on his long period of service.

Viscose Co. Quality Plan Specifications Ready

The Viscose Co. and the Better Fabrics Testing Bureau of the National Retail Dry Goods Association have completed their specifications for cloth and garments, and these standards will be sent out to all manufacturers using Viscose Co.'s "Crown Brand" rayon.

Business News

Emphasizes Machinery Development

The August issue of *The Fog Horn*, published by Parks-Cramer Co., Fitchburg, Mass. reprints and comments upon article published recently in TEXTILE WORLD, which called attention to the marked activity and progress in the development of new textile machinery, processes and equipment. *The Fog Horn* emphasizes the importance of maintaining humidifying equipment in step with improved machinery in the plant.

Fidelity Machine Granted Patent on Fabric

United States patent number 1,772,400 was issued Aug. 5 to the Fidelity Machine Co., relative to wrap stitch design on rib fabric. It is a broad patent with eleven claims designed to cover every type of tubular knit fabric with wrap-around design, according to statement by the company.

Edward R. Ammon to Manufacture Machinery Abroad

The hosiery inspecting machinery produced by Edward R. Ammon, Reading, Pa., will be manufactured as far as possible in the countries in which they are sold. Formerly the machines were exported from this country, but various charges made the ultimate cost very high. Mr. Ammon is making a trip to Europe soon, in order to contact with foreign customers.

Hetherington Domestic Agents for Dronsfield Bros.

Dronsfield Bros., Ltd., Oldham, England, manufacturers of card grinding and mounting machinery, also roller covering machines, announce the appointment of John Hetherington & Sons, Inc., Boston, Mass., as the sole agents in the United States.

Reduce Sylphrap Prices

The Sylvania Industrial Corp. announces a price reduction approximately ½c. per 1,000 sq.in. on all weights and sizes of Sylphrap, transparent cellulose, effective Aug. 1. This reduction supplements a similar one announced with the beginning of operation of the first unit of the Sylvania plant at Fredericksburg, Va., on May 26.

Barrett-Cravens Will Occupy New Plant

On Sept. 1, Barrett-Cravens Co., manufacturers of Barrett lift-trucks, Steeleg platforms and portable elevators will move into their new modern plant at 101 West 87th St., Chicago, Ill.

This move places Barrett-Cravens under the same roof with its two affiliated companies—the Walker Vehicle Co., manufacturers of electric street trucks, and the Automatic Transportation Co., manufacturers of electric lift-trucks and tractors.

Haynes Stellite Co. Opens New Foundry

Haynes Stellite Co., Kokomo, Ind., a unit of Union Carbide & Carbon Corp., has announced the completion of a new foundry at the Kokomo Works, which has been built expressly for the manufacture of the Hastelloys, a group of acid resistant alloys. They are of particular interest to those who have been faced with the problem of providing suitable equipment for resisting the action of hydrochloric acid and moist chlorine.

Trustee Appointed for Lamb Knitting Machine Co.

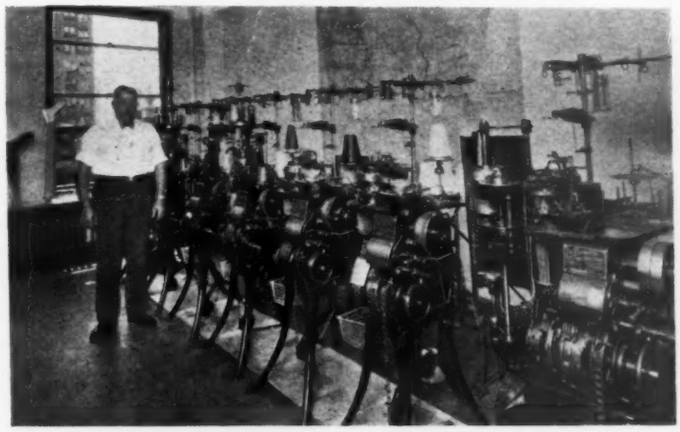
The Lamb Knitting Machine Co., Chicopee, Mass., knitting machine manufacturers, has made a voluntary assignment for benefit of creditors. Frank C. Flint, trustee acting for creditors, reports a falling off in demand for the product. The amount due unsecured creditors is said to be $25,000. The secured creditors include the Chicopee Savings Bank and the Springfield Chapin National Bank & Trust Co.

The company has been operated since 1900. Frank D. Howard is president and manager and Nelson B. Carter is treasurer.

Whiting Appointed Official of Westinghouse Co.

Fred T. Whiting has been appointed assistant manager of the northwestern district under N. G. Symonds, commercial vice-president.

Mr. Whiting was graduated from Iowa State College in 1913, and immediately entered the apprenticeship course of the Westinghouse Machine Co. In 1915 he became a part of the sales department at East Pittsburgh and was transferred to Chicago in 1917. He served in the United States Army for two years as major in the 5th Engineers Corps, returning to Chicago to assume his former duties. He was manager of the engineering division of his company from June, 1920, to June, 1921.



New machinery display room and testing department just opened by The Hemphill Co., manufacturers of Banner hosiery machines, at their New York office, 93 Worth St. Display was arranged by Arthur Pelkey (at left), the firm's Canadian representative.

New Books

1930 OFFICIAL AMERICAN TEXTILE DIRECTORY, with which is combined the American Directory of the Knitting Trade; Bragdon, Lord & Nagle Division of McGraw-Hill Catalog & Directory Co., 475 Tenth Avenue, New York.

By consolidating the Official American Textile Directory and the American Directory of the Knitting Trade in the United States and Canada, into one volume, the Bragdon, Lord & Nagle Division of the McGraw-Hill Catalog & Directory Co. is making it possible for the textile field for the first time to find all of its directory information in one book.

All of the directory features which have made the two volumes popular in separate editions have been retained in the new volume, making an edition of 1,170 pages containing detailed reports on the textile mills throughout the United States, Canada and Mexico, with special sections containing detailed information on raw materials, on yarns, on bleaching, dyeing, finishing and printing concerns, on commission houses, on manufacturers of carpets and rugs, cotton goods, silk goods, woolen and worsted goods; a special section devoted to manufacture of knit goods, as well as a section devoted to selling agents, export houses, jobbers, resident buyers of New York City, large retailers; and an alphabetical index to the textile establishments of the United States and Canada.

The directory is produced in three editions: one for office use with thumb index at $6.00; a traveler's edition at $4.00, and a vest pocket edition (of the mills only) for salesmen at $2.00 each. The vest pocket editions are produced in three separate booklets; one for New England States and Canada; one for the Middle Atlantic States, and a third for the Southern and Western States. Any or all editions may be obtained from the publishers, Tenth Ave. at 36th Street, New York.

INCOME AND WAGES IN THE SOUTH, by Clarence Heer; published by the University of North Carolina Press, Chapel Hill, N. C. $1.00.

Available statistical evidence bearing upon the income status of farmers, factory workers and other wage earners in the southern states, including an analysis of wage differentials existing between the South and other sections of the country, is presented in condensed form. The author concludes that, although the disparity of incomes between the South and the rest of the country has existed at least since the Civil War, it has not as yet disappeared automatically, and the present situation in the southern States will not be adequately met by a "supine policy of *laissez-faire*," but rather it calls for a high order of economic statesmanship. It is shown that the success of positive measures for raising the level of incomes in the South depends upon full consideration of the farmer's predicament.